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ABSTRACT

In this 12-month study, an interdisciplinary research team comprehensively investigated the existing and projected Human Resource Development (HRD) needs of Southeastern Pennsylvania Transportation Authority (SEPTA). The general objectives of the study were to indicate how SEPTA's HRD program might be improved, and to outline the parameters of a regional mass transport HRD system.
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HUMAN RESOURCE DEVELOPMENT STUDY
OF

THE SOUTHEASTERN PENNSYLVANIA
TRANSPORTATION AUTHORITY

by
The Human Resources Center
The Wharton School
University of Pennsylvania
Philadelphia, PA 19174



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May, 1979

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The Human Resources Center

The Human Resources Center, the Management Department, The Wharton School, University of Pennsylvania, was established in 1964 as another mechanism for mobilizing the University's resources and bringing them to bear on problems external to the University. Through consultation, action research, training and teaching, the Center's current interests cover such topics as the following:

- . Human Resources Development
- . Management and Leadership Training
- . Organizational Change and Development
- . Organizational Communication
- . Social Issues in Management

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In addition, Mr. Thomas Whitehair and Dr. Frank Enty were both helpful and gracious in their liaison roles from the Delaware Valley Regional Planning Authority and The Human Resource Division of Transit Management of UMTA. We appreciated the opportunity given to us by UMTA to bring some of the interests and resources of The University of Pennsylvania to impact upon the complex issue of the management of human resources in urban mass transportation systems.

Finally, we hope that our efforts and recommendations will be viewed consistent with the spirit and dreams of the late David Rosen, who, until his untimely death just before the project began, believed that an improved mass transportation system largely depended upon better utilization of human resources. It was also in that spirit that hundreds of SEPTA employees and their union and management leadership cooperated in responding to our inquiries and questions. Without their cooperation and trust, the study, conceived as a collaborative project between the consultant and SEPTA, would have been impossible to complete.

The views expressed are those of the HRC Research Team and do not necessarily represent the views of the sponsor (UMTA) of the research.

EXECUTIVE SUMMARY

In this 12-month study, an interdisciplinary research team of the Human Resources Center (HRC), The Wharton School, University of Pennsylvania, comprehensively investigated the existing and projected Human Resource Development (HRD) needs of Southeastern Pennsylvania Transportation Authority (SEPTA). The general objectives of the study were 1) to indicate how SEPTA's HRD program might be improved, and 2) to outline the parameters of a regional mass transport HRD system. This Executive Summary is organized into two sections: 1) dealing with the highlights of each chapter of the report except the last, and 2) the recommendations of the HRC Research Team related to the two general objectives stated above, which is the subject matter of the last chapter.

A. HIGHLIGHTS OF CHAPTERS OF THE REPORT

1. INTRODUCTION

Recognition is given to fundamental changes in the mass transportation industry as a function of transfer from private to public systems. The most important change is that the basic goal of these agencies changed from the predominantly financial (maximizing profits) to a service-oriented one; the main goal of public transit agencies is to provide good service. In many cities change to public ownership also brought about resolution of financial problems which the private operator had faced. As a result of this new service orientation and improvements made possible by better financing, the downward trend in transit ridership has been reversed in many cities. In other cities, of which Philadelphia is one, public ownership has not brought about adequate financing, and the deterioration of service and ridership are continuing.

The serious financial problems in public transportation are only one part of the problem. The second major part is the quality of manpower. It is argued that even if all financial problems are resolved, competent, skillful and dedicated personnel, interested in their work and enthusiastic about potential improvements, are needed if significant and permanent improvements of transit services are to be achieved. A careful analysis of human resources and methods utilized for their improvement is therefore a sine qua non of progress in urban public transportation.

The objectives of this study which analyzes human resource development in the third largest transit system in the United States, the Southeastern Pennsylvania Transportation Authority (SEPTA), were the following:

- assist in determining the human resources development organizational needs of SEPTA
- identify the objectives to be met through human resource development training
- determine the organizational resources, and constraints to meet identified needs
- develop alternatives to accomplish human resource training objectives

- . develop a plan to implement a human resource development system
- . structure a human resource development evaluation model.

A distinctive feature of the methods used by HRC was the conceptual framework developed to guide intervention into the SEPTA system. The intervention process developed at HRC seeks to intervene into organizational systems in such manner as to obtain the data required, but at the same time to feed back that data to its leadership in order that operatives in the system (SEPTA) might benefit from the interpretation of the data, and in order that its managers might use the data immediately to increase organizational effectiveness.

The history of SEPTA's becoming a public authority is traced and the emphasis given to financial and budgetary considerations by its leadership documented. The rankings of policy statements and goals by SEPTA's management suggests a preoccupation with the financial plight of the Authority to the neglect of other issues.

2. METHODOLOGY

In keeping with the intervention strategy outlined above, the Implementation Plan for the study provided for a feedback of data (obtained via diagnostic, base-line instruments and by interview and observation) to approximately 25 of SEPTA's top management group. HRC proposed in the initial meeting with the top management group that there be one meeting with the group for each of the four phases of the project. The immediate consensus of the group was that monthly meetings be held between the HRC Research Team and the Management Staff. These monthly meetings were designated a GENERAL vs. A SPECIFIC TOPICAL meeting.

In the GENERAL meetings, the managerial group reviewed the progress of the study, discussed the implications of the general data collected by the HRC team, and suggested solutions to operational problems in the conduct of the study.

The agenda for the SPECIFIC TOPICAL meetings was structured around specific data or information sought by the HRC team. All persons interfacing the topic or training issue were originally invited to participate in the discussion of a specified issue. All members of the management forum chose to attend the SPECIFIC TOPICAL meetings as well as the GENERAL meetings. This procedure provided an immediate social-interactive learning experience for both the SEPTA and HRC personnel involved in the discussion of designated topics, issues or data.

The methods of analysis utilized in the study vary as a function of the populations studied, the nature of the data available and the purpose of the analysis. Although members of the HRC Team began the HRD study with considerable knowledge about SEPTA and its operations, the following constraints on the study and its findings are recognized:

- 1) that throughout the project HRC had no official contact with the SEPTA Board, although Team members observed SEPTA Board meetings
- 2) that HRC was not commissioned in the study to study SEPTA's organizational structure

- 3) that although the Booz, Allen & Hamilton Consultant group was simultaneously studying SEPTA's organizational structure, the nature of its contractual agreement did not allow Booz, Allen & Hamilton to share their findings until approved by the SEPTA Management Study Steering Committee, Delaware Valley Regional Planning Commission.

During the final phase (Phase IV) of the study, the initial draft of this report was reviewed by management group and modifications invited before publication. Interestingly, although cooperation and sharing by SEPTA's leadership with the HRC Team was very good throughout the project, a flood of material desired earlier, was forthcoming only after the initial draft was reviewed.

3. MANPOWER AND PERSONNEL

Evaluation of the Personnel and Labor Relations Functions

The recent evolution of the industrial-personnel relations at SEPTA is described and shows how this function is divided between the Employee Relations Department and the Industrial Relations Department. The director of the former reports the organizational design to the General Manager, and the latter department head reports to the Assistant General Manager for Operations. Similarly, training and development responsibilities are also divided, and directors report to different managers. It is pointed out that reporting arrangements reflect an evolutionary process and present distinct problems of emphasis and coordination.

Manpower Planning

SEPTA has given attention to forecasting the level and structure of its manpower requirements over time. At present, however, it was found that SEPTA has no manpower inventory process. The data available, although crude, were analyzed along with two recent manpower studies of SEPTA in order to determine the level and allocation of manpower in the system.

Research also revealed that several proposals were made for manpower planning programs, including a 'Management Succession Program' in November, 1976, by the Employee Relations Department. For a variety of reasons, none of these programs was implemented.

More recently, there was evidence of planning for SEPTA's future manpower needs in two areas of anticipated technological change: 1) the need for electronic technicians to maintain vehicles with new technological components, and 2) the need for manpower with specialized training to man 15 sub-station control centers being converted from manned rotary rectifiers to solid state rectification units.

Employment Process

The complexities of the employment process at the Authority are reported, and special attention is given to those aspects of the selection process involving affirmative action. The employment for positions over \$15,000 per year involves final Board review and a prolonged process. As a result, SEPTA often loses the

"best" outside candidates.

Similar to instances cited in manpower planning, abortive efforts have been made to improve the selection process via development of validated tests to meet EEO requirements in the selection of executive secretaries and in designing a weighted application form for the selection of bus and rail operators. All of these plans were apparently abandoned even prior to a pilot test.

Employment priorities have resulted in hiring more females, Blacks and Hispanics, but not in skilled or managerial jobs. At the higher levels of SEPTA, the situation has actually worsened, partly because of the fact that younger and better educated employees of all descriptions are leaving.

Job Evaluation and Performance Appraisal

Job analysis, description and evaluation are the responsibilities of both the Employee Relations and Industrial Relations Departments. The professional/managerial personnel are handled by the former department, and hourly personnel by the latter.

Position descriptions for managerial personnel were initialed in 1974. After a 10-week training program for all managers, it was installed as the official system in January, 1975. At about the same time, Employee Relations began revising the performance appraisal system. This resulted in the "SAM Performance Appraisal Form" which is weak in format and design.

Although faring somewhat better than performance appraisal, job evaluation has deficiencies as well in its design application. If training and development goals are to be effectively established and achieved, the problems associated with the development and operation of both job evaluation and performance appraisal systems need to be corrected.

Management Trainee Program

SEPTA conducted two management training cycles in November, 1972, and February, 1974, lasting two years and 18 months respectively. Both efforts were then dropped because, in the opinion of many, the training was mismanaged. The first program, however, represented a radical change at SEPTA because "high potential people" were recruited from outside SEPTA. Most discouraging is the fact that most of these potential, future top managers at SEPTA have already left the Authority.

Employee Turnover and Internal Mobility

A review was made of the several attempts at SEPTA to analyze turnover. In 1977 the Employee Relations Department surveyed turnover, but had to terminate the effort because of lack of support by management personnel whose cooperation was essential. Another SEPTA survey analyzed SAM separations from June 1, 1976, to January, 1977, but management failed to respond when asked if they found the report useful, and it was not repeated.

The HRC Research Team analyzed the reasons given during exit interviews by 26 "A" employees who had resigned from SEPTA within the past 24 months.

The younger, better educated and more mobile managers are resigning for a variety of reasons: they do not have as much invested in the organization; they are more attractive to prospective employers; they are sensitive to the general unhealthy tone that exists in the Authority; they experience a feeling of insecurity due to the general uncertainty that pervades the Authority; and they felt outrage at applying for unemployment compensation during the recent strike.

The management employees who leave are mostly in technical, analytical and administrative jobs, including a substantial number of engineers. There are, in fact, very few operating managers who terminate voluntarily. The specialists have the skills that provide the mobility to effectuate job changes. Service supervisors, on the other hand, have little opportunity to transfer their skills and consequently are not, as a group, mobile.

Similar data, policies and procedures related to internal movement of personnel reveal a number of concerns which merit attention in an efficient HRD program.

4. LABOR-MANAGEMENT RELATIONS

The Industrial Relations Department

In 1974 top management decided that the Executive Officer in charge of Personnel and Labor Relations could not effectively supervise both areas. It was therefore decided to have Industrial Relations report to the Assistant General Manager for Operations, and Employee Relations to the General Manager. Outlined in this chapter are numerous instances in which the organizational arrangement creates problems of policy and coordination.

Union Leadership Attitudes

The view of SEPTA expressed by the leadership of TWU #234 is not positive. Explored in this section are the implications for HRD development of such attitudes as "politics took over when SEPTA went public," "management rules by instilling fear," "there is no positive managerial strategy to motivate employees" and "the Board is not representative (i.e., no minority membership) of the community."

Internal Mobility and Training

Union leaders are critical of the use of seniority lists and their use in disputes, of the manner in which qualification for promotion is obtained through job assignments and of the fact that hourly employees have to take initiative, with little support from management, in order to obtain training.

Specific recommendations made by Union leadership for improving the morale and productivity are received. These include the following:

- 1) that SEPTA should provide more on-the-clock training (both OJT and classroom)
- 2) that increased training is required to improve operations generally
- 3) that hiring standards should be improved.

The Maintenance Training School

An innovative program to facilitate hiring in entry level jobs was negotiated by the Industrial Relations Department and TWU #234. The creation of the Maintenance Training School in 1972 represents a significant development in union-management collaboration to strengthen human resources. The School was an extension of Foreman & Supervisory Training Program established by the leadership in the RS&S department and later transferred to the Employee Relations Department. Evidence suggests some degree of success based on the following evidence: 1) the small attrition from the program, 2) the facilitation of minority hiring, and 3) the cessation of the practice of automatic promotion based upon seniority without merit consideration.

Productivity Improvement

Reviewed here are two agreements between SEPTA and its union in recent years, aimed toward fostering labor-management cooperation to improve labor productivity. We found that some union officials in TWU #234 were surprisingly uninformed about the application of productivity criteria, and there is a difference of opinion between union leaders and management as to whether or not this program has resulted in labor surpluses. Finally, we review and compare the indicator used for measuring productivity of operating personnel at SEPTA (seat-miles) with those criteria employed in European countries.

5. JOB SATISFACTION AND ORGANIZATIONAL CLIMATE FOR HRD AT SEPTA.

It was reasoned that perceived climate is essential to HRD development in an organizational setting. We wanted to learn, therefore, how different levels of SEPTA personnel felt about their jobs and work situation. Attitudes toward job satisfaction and the climate at SEPTA were obtained via the administration of a questionnaire mailed to a randomly selected sample for five levels of personnel: 1) management and professional, 2) clerical, 3) facilities, 4) RS&S, and 5) transportation. A 38% return of the questionnaires (322 out of 832) across the five personnel groups was obtained. In addition, forty-five percent of the respondents added qualitative remarks in the space provided. The most striking finding from the survey data, buttressed by the added comments and interview data, is the expression of lack of identity with SEPTA as an organization, and the expression of low moral.

Most of the differences on the various dimensions examined in the survey are among the personnel groups, regardless of length of service. Not too surprisingly, the management group was the most positive. They were the only personnel group which felt positive about the character of supervision at SEPTA. The Facilities group was somewhat in the middle on most measures, with Clerical and Transportation second to Management in being positive about some features of the SEPTA situation.

RS&S was the least satisfied group overall. They do not feel rewarded for extra work, feel financial rewards are low, and view negatively their physical surroundings, as well as the nature of their work and supervision. This is interesting in light of the detailed discussion in Chapter 4 of the need for improved communication and collaboration between management and union leadership, related to productivity.

The implications of these findings are first discussed in terms of the need

to initiate HRD efforts and a feeling of positive identity with the organization. This must come from appreciation of leadership on the Board, and in management and the union, of the potential of human resource development for higher productivity and better service. It is suggested that it will be a product of the recruitment, training and motivation of more effective managers and supervisors, while developing an esprit de corps within SEPTA work units.

6. EDUCATION AND TRAINING AT SEPTA

It is necessary to view separately the two principal training efforts: Operational Training and Safety Division and Employee and Development Training. The history and line of responsibility of the leadership for each of these training functions are outlined in Chapters 3 and 4. It is pointed out that systematic observation and documentation in a cost/benefit model of each training program had to be abandoned because of the current status of HRD at SEPTA. For example, information is not available to assess instructor qualifications, student expectation related to work performance on their jobs at SEPTA, the use of alternative instructional strategies, etc. On the other hand, it is true that training in the Operational Training and Safety Division has been revised within the last several years. Standardized modular units of instruction are being developed. A scheme was developed and shared with the management group during the monthly meetings to focus upon the need for SEPTA to develop a program for each personnel group balanced between SEPTA's HRD needs both now and in the future.

B. RECOMMENDATIONS FOR IMPROVING HUMAN RESOURCE DEVELOPMENT AT SEPTA

Recommendations for improving SEPTA's current HRD efforts are discussed in terms of the five HRD needs of the system outlined below.

1. THE NEED FOR AN ORGANIZATIONAL DEVELOPMENT PROGRAM

The history of HRD at SEPTA is a "bottoms-up" evolution. It is argued that SEPTA's Board and top leadership need to appreciate fully the value of viewing personnel as human capital. An OD program is outlined in which the above leadership would be immersed in the HRD problems of SEPTA in such a manner as to insure the development of an HRD policy which is capable of support and implementation. Models from other corporate structures are cited. The OD process is necessary to create a climate of growth, development and change with which personnel will be proud to identify. "A key factor influencing the person's identification with his organization is the extent to which he personally values the goals it is pursuing (Hall, 1976)."

2. ORGANIZATIONAL REDESIGN OF PERSONNEL FUNCTION

The rationale for improving the following aspects of the personnel-training function is discussed: 1) the relationship between human resource planning, manpower forecasting and general institutional planning; 2) organizational redesign of the Personnel and IR functions; and 3) a personnel management information system to inventory skills, management development information, and training and education data. As noted in Chapters 3 and 4, a number of these steps were proposed by SEPTA managers in the past, but they were never implemented. This is another argument for the Organizational Development Program (OD). An outcome of the HRD policy statement from the OD Program would be for leadership to realize changes required in organizational design in order for the HRD policy to be effective.

3. MANAGEMENT DEVELOPMENT AND CAREER PLANNING

There is ample evidence presented in this study which indicates the need for a systematic management development and career planning program at SEPTA. From an improved manpower forecasting function in Personnel, the number and quality of managers needed in future operations should be recruited and hired (under a less cumbersome employment process) and inducted into a career planning process. Particular attention is given to an organization design with the Personnel function which integrates the career interests of employees with future needs of the Authority. But first it is recommended that an HRD policy must be established and implemented.

4. IMPROVEMENT OF PRODUCTIVITY OF LABOR AND CAPITAL

The need to monitor continually SEPTA's performance with peer groups is argued and will require greater union-management cooperation, and external technical assistance.

5. DESIGN OF TRAINING AND DEVELOPMENT SYSTEMS

Derived from the aforementioned need to establish an HRD policy, a new perspective toward manpower, more adequate support for HRD and necessary changes in organizational design, the steps which might be followed in the redesign of each HRD effort are outlined. This will make possible the application of appropriate evaluative measures so that a return on the HRD investment could be determined. Furthermore, training must be more closely related to SEPTA's current and future needs as represented in improved task performance and worker satisfaction. Fifteen areas of technical assistance are outlined which the HRC has interest in pursuing with SEPTA, following a statement and commitment to HRD policy by SEPTA's leadership.

C. PARAMETER FOR A REGIONAL HRD SYSTEM

The four parameters of a Regional HRD System are briefly discussed:

- 1) the need for the Regional System
- 2) the Conceptual Orientation and Organization of the Regional Center
- 3) the Capital Investment
- 4) the Organization and Program of a Model Center.

Although there is evidence supporting the need for a Regional Center, it seemed premature to decide on a specific conceptual orientation and its particular organizational structure until the region it was going to serve has been determined.

Chapter 1. Introduction

A. A Human Resource Perspective

Public transportation in our cities was seriously neglected for several decades. The competition of the private automobile, stimulated by various policies favoring that mode (such as support of single family housing, requirements for provision of parking areas in cities, non-diversion laws requiring that all highway taxes be used for highways only, etc.) caused continuous diverting of passengers from transit to the automobile. Transit operators, unable to increase productivity of their services under the conditions of increasing street congestion, and unable to obtain sufficient public assistance, were forced to increase fares, thus further accelerating diverting of their passengers to the automobile. Eventually, transit operators could not survive as private undertakings, and they were taken over gradually by public agencies. Presently, transit agencies in all large cities are in public domain.

The transfer of public transportation systems from private to public ownership brought about some fundamental changes in that industry. The most important change is that the basic goal of these agencies changed from the predominantly financial (maximizing profits) to a service-oriented one; the main goal of public transit agencies is to provide good service. This does not, however, mean that economic efficiency of these agencies can be neglected. In many cities change to public ownership also brought about resolution of the financial problems which the private operator had faced. As a result of this service orientation and improvements made possible by better financing, the trend in transit ridership, which was downward for many years, has been reversed in many cities. This was a direct result of the improved quality and quantity of transit service offered. In some cities, however, public ownership did not bring about adequate financing and problems of insufficient funds and service determination are continuing. One of these cities is Philadelphia.

The serious financial problems in public transportation are only one part of the problem. The second major part is the quality of manpower. Decades of neglect of public transportation have greatly reduced the quality of personnel in all branches and levels of the entire industry, starting from manufacturing of vehicles and other components, through operations, maintenance and management of transit agencies. Even if all financial problems are resolved, competent, skillful and dedicated personnel, interested in their work and enthusiastic about potential improvements, are needed of significant and permanent improvements of transit services are to be achieved. A careful analysis of human resources and a major effort in their improvement to overcome the decades of decline of the entire industry are therefore a sine qua non of progress in urban public transportation, which is so badly needed for recovery and progress in our cities. This study analyzes the important aspect of human resources in the Southeastern Pennsylvania Transportation Authority, the third largest transit system in the United States.

Improved service is highly dependent on the employee's awareness and willingness to contribute to this goal. Thus, a program to change employee's awareness, attitude and enthusiasm is in order. Such a program is dependent upon a human resource perspective and an organizational climate which promotes growth, development and change. A human resource perspective calls attention to the key functional linkage between the personnel and training functions. Moreover, the necessary interdependence between the above functional departments is best achieved when supported by policies and practices which recognize the dynamic quality of the entire system in operation.

It is not enough for a transportation authority to provide a series of interlocking training and educational programs for its employees at all levels, in order to achieve its human resource development goal. The organization's responsibility is to first create a climate for development and growth consistent with a human resource management style. Robert E. Tannehill (1970) writes about "the importance of the climate and environment for motivation and development, and how these elements must be woven in as an integral fabric of the organization." Every phase of organization must be closely examined in the light of understanding how structure, work systems, over-all style of management and specific policies are designed to help people make their maximum contribution to the organization.

For approximately 15 years, the Human Resources Center of the Wharton School, University of Pennsylvania, has been involved in Human Resource Development in urban systems: education, police, hospitals and transportation. From a human resource point of view, all organizations are systems; i.e., they are dynamic, integrated units. Ideally, the parts of the transit system, or units must be coordinated in a logical efficient manner so that the system can function to benefit the organization itself and to allow the full potential of individual employees to be realized.

B. Objectives of the Study

Funded by the Urban Mass Transportation Authority (UMTA) of the U.S. Department of Transportation, the specific objectives of the HRD study were the following:

- assist in determining the human resources development organizational needs of SEPTA
- identify the objectives to be met through human resource development training
- determine the organizational resources, and constraints to meet identified needs
- develop alternatives to accomplish human resource training objectives
- develop a plan to implement a human resource development system
- structure a human resource development evaluation model

C. The Conceptual Framework

The essence of the Human Resource Development Study required a planned, systematic process in which applied behavioral science principles and practices are introduced into an ongoing organization (SEPTA) for the purpose of effecting organizational improvement, greater organizational competence, and increased organizational effectiveness. The focus is upon the total system of SEPTA and the improvement of its human resources. The study also required that an outside consultant (HRC) working collaboratively with designated SEPTA staff, intervene in the on-going interactive process in order to accomplish the following:

- diagnose the system and its processes;
- make recommendations toward the improvement of SEPTA's adapting, coping, problem-solving and goal-setting processes in human resource development; and
- intervene in such manner as to enhance the process-maintenance capacity of SEPTA.

The HRC has developed intervention techniques which, while making diagnostic studies, model self-analysis and self-reflection as means of self-improvement. These intervention techniques also include data feedback loops to guide, improve and evaluate the actions of key SEPTA personnel during the course of the study.

In the conduct of other organizational development (OD) programs (Mitchell, 1968; Mitchell, Fox and Roberts, 1970; Mitchell, 1970; Mitchell, Jr., 1975; Perry, 1972; Mitchell, 1976) HRC has developed the operational philosophy that it is important to intervene into systems and ask questions in such manner that the operatives in the ongoing system have the opportunity for immediate reflection and learning. Moreover, their informational inputs obtained by the consultant, are fed back through the appropriate managerial system for utilization and not "stored" in some unavailable resource.

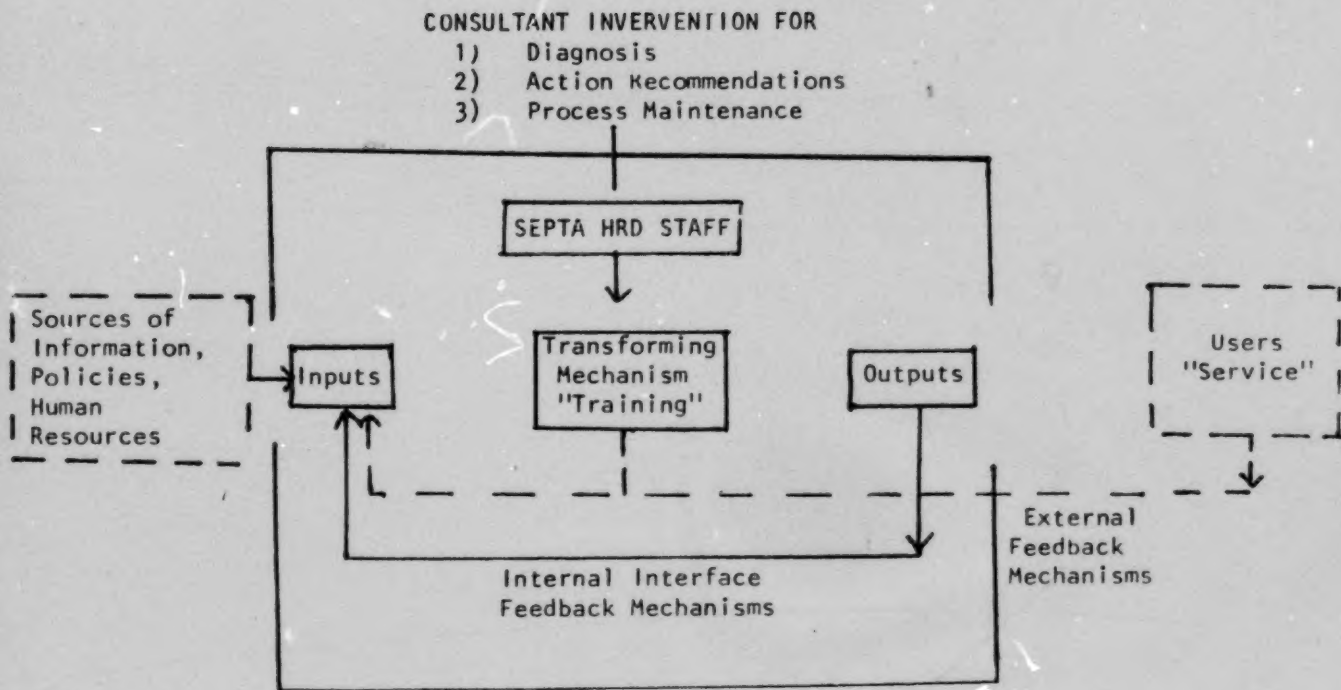
Although the purpose of this study is to provide a comprehensive analysis of existing and projected human resource development at SEPTA, the opportunity was not lost to effect organizational development while achieving this goal. In fact, HRC felt that this goal would be achieved more effectively if the process-maintenance capacity of SEPTA is also improved.

In addition, the the HRC's consultant role was so defined that the study took into account any other independent studies conducted at SEPTA during the same period. Similar findings of this project when appropriate would be shared with other investigators contracted by SEPTA, subject to approval of SEPTA's leadership.

Figure 1 is a diagram of the SEPTA system as an ongoing process in interaction with its environment. Indicated in Figure 1 is sensitive intervention of the consultant into the system to work collaboratively with SEPTA HRD staff in order to 1) diagnose HRD organizational needs, 2) make action recommendations and 3) provide process maintenance in the SEPTA system as indicated above.

FIGURE 1

DIAGRAM OF SEPTA SYSTEM AS ON-GOING INTERACTIVE
PROCESS IN INTERACTION WITH ITS ENVIRONMENT
AND SHOWING CONSULTANT INTERVENTION



The diagram in Figure 1 also shows the scope of inputs into the system's transforming mechanism, the HRD Training Program, and points out that the final criteria must be understood in terms of the increased effectiveness and efficiency of human resource development and utilization in service to SEPTA's present and potential customers.

Shown in Figure 1 are the feedback mechanisms. For example, it is necessary to evaluate existing and recommended human development programs in such manner that user evaluation cycles back to selection and assessment aspects of "Inputs" and training program modifications in the "Transforming Mechanism" box. For example, in the follow-up of HRD training effectiveness, one measure would be more positive attitudes toward SEPTA operatives and service personnel. An assessment of user attitudes would then cycle back both to the Input box to assist in determining better selection criteria, and to the Transforming Mechanism box where appropriate modifications would be made in both the education and training of SEPTA personnel. An investment, therefore, in a systematically designed, implemented and monitored human resource development program should eventually affect the quality of human resource input (i.e., quality of personnel seeking employment with SEPTA) into the system in the long run.

D. The Setting of the Study

1. The Southeastern Pennsylvania Transportation Authority

Created by the Legislature of the Commonwealth of Pennsylvania in 1963, the Southeastern Pennsylvania Transportation Authority (SEPTA) was established February 18, 1964, to plan, develop and coordinate a regional transportation system for Philadelphia, Bucks, Chester, Delaware and Montgomery counties. It was given the right to acquire, construct, operate, lease and otherwise function in public transit in five counties. To reach its goal of integrating rail and transit services, SEPTA acquired the privately owned Philadelphia Transportation Company in 1968 and reached an agreement in 1969 to acquire the Philadelphia Suburban Transportation Company (Red Arrow). SEPTA also maintains purchase-of-service commuter contracts with ConRail for the operation of 13 area commuter lines. The SEPTA Handbook published in 1977 states that the Authority "operates 80 million vehicle miles of service a year on routes totaling 2,750 miles and is the third largest transit system in the country."

SEPTA, including the Frontier Division, the Red Arrow Division, the Railroad Division and the City Transit Division, was designed as a coordinated regional system. It was planned that riders would be able to cross division boundaries without changing vehicles and would be able to pay a full-fare for each inter-divisional transfer. Coordinated scheduling and joint through-routing between divisions is still limited. The dream of a coordinated regional system has been slowed because of budgetary and political considerations affecting both policy-making and management of the system.

2. SEPTA's Objectives

The Six-Year Capital Program (1977-1982) for SEPTA approved May 26, 1976, includes a section in which SEPTA's managers ranked "Ten

Functional Objectives and Nineteen Policy Areas." This was the second year that SEPTA's managers had been surveyed regarding the priorities they felt necessary in order for the Authority to become a more coordinated regional system. Table 1 lists the functional objectives and policy areas. The matrix in Table 2 shows first "the overriding concern with financial strategy. This policy was uppermost in the mind of most managers, and was scored among the two or three most important policies by the others. This is certainly understandable in the present context of increase in cost and uncertainty of available funding (SEPTA, 1976)."

Also noted in Table 2 by the distribution of "X"s is the correlation between the managers' ranking of policies and the priorities represented in the Capital Program. There is only one Generic Capital Project which is HRD by definition; namely, "Instruction/Training Facilities." This fact is of interest in relation to the organization and funding of human resource development in SEPTA as well as other urban mass transportation systems.

TABLE 1

LIST OF TEN FUNCTIONAL OBJECTIVES AND
NINETEEN POLICY AREAS FOR
RANKING BY SEPTA LEADERSHIP
IN 1976

Service and Pricing

Functional Objective: To improve service while providing a pricing system that is equitable to the user, the public transportation system, and the community in general.

- Policy 1: SEPTA must improve accessibility to opportunities via public transportation for people living and traveling in the SEPTA region.
- Policy 2: Public transportation should be safe, comfortable and attractive to use.
- Policy 3: SEPTA must develop and implement a practical regional pricing structure which is equitable to the user, transportation operator and community.

Transportation Coordination

Functional Objective: To develop a closely coordinated and integrated public transportation system so that improvements can be implemented on a regional basis.

- Policy 1: SEPTA must integrate its City Transit and Red Arrow Divisions, Trenton-Phila. Coach Company, as well as commuter railroad operations.
- Policy 2: SEPTA must develop a regional public transportation system consisting of a fully coordinated network of all modes, operators and owners.

System Development

Functional Objective: To expand and improve the system to meet current and future travel needs, consistent with the Delaware Valley Regional Planning Commission's comprehensive planning process.

- Policy 1: SEPTA must improve accessibility to opportunities over the long-term through a plan for development of a unified public transportation system.

Transportation -- Land Use Policy

Functional Objective: To gain benefits for the user, the public transportation system and the community by planning transportation in conjunction with land-use planning and development.

- Policy 1: SEPTA must plan, improve and expand the public transportation system consistent with achieving the best relationship between transportation and the community it serves.

TABLE 1 (page two)
"Ten Functional Objectives"

Policy 2: SEPTA must plan, improve and develop station facilities (all modes) consistent with the guideline report, REESTABLISHING THE LINK.

Transportation -- Social Policy

Functional Objective: To plan and operate public transportation so that it exerts a positive force on the social problems confronting the region.

Policy 1: SEPTA should improve accessibility to opportunities via public transportation for the immobile.

Policy 2: SEPTA should make public transportation safe from crime, including vandalism, for the traveling public and SEPTA employees.

Transportation -- Environmental Policy

Functional Objective: To plan and operate public transportation so that it exerts a positive force on the environmental problems confronting the region.

Policy 1: SEPTA must minimize pollution emanating from public transportation.

Policy 2: SEPTA must minimize regional pollution by providing the facilities and services which entice people to make more trips via public transit and less with automobiles.

Policy 3: SEPTA must enhance and preserve the environmental aspects of land-use, including open space and green areas.

Design

Functional Objective: To strengthen the attractiveness, vitality and identity of the system through the incorporation of design standards in the total planning and development process.

Policy 1: SEPTA must develop a unified design program encompassing the various design elements as they relate to the entire public transportation system.

Operating and Maintenance Policy

Functional Objective: To achieve improved efficiency, reliability and safety in the operation and maintenance of public transportation.

Policy 1: SEPTA must improve its personnel program.

Policy 2: To increase the safety, efficiency, and reliability of the region's transportation system.

TABLE 1 (page three)
"Ten Functional Objectives"

Financial Strategy

Functional Objective: To make use of all available funding sources and to develop new ones so that adequate financing exists to meet the functional objectives.

Policy 1: SEPTA must develop a financial plan to facilitate achieving the functional objectives.

Advertising-Marketing Strategy

Functional Objective: To increase the support and usage of all public transportation through a total planning, marketing and advertising process.

Policy 1: The public's awareness, understanding and support of SEPTA, its objectives, and programs must be improved.

Policy 2: All improvements must be marketed through a total planning process, from market research through advertising to post-project evaluation.

Chapter 2 Methodology

A. Rationale

In the proposal for the HRD study developed by HRC, a detailed plan for the implementation of the study was outlined in Table 2 (Appendix A). The various work units (steps) were distributed across four phases of the total project. Consistent with the collaborative conceptual model stated in Chapter 1, the final steps (8,9) of Phase I called for the development and critique of the Implementation Plan for Phases II, III and IV by SEPTA leadership. The Implementation Plan is indicated in Figure 2 and its rationale is based upon the response of the HRC Research Team to the willingness of a significant number of SEPTA's management to participate more actively in the HRD study than had been anticipated.

HRC proposed in the initial meeting with approximately 25 of SEPTA's top management group, that there be one meeting with the group for each phase of the project. The immediate consensus of the group was that monthly meetings be held between the HRC Research Team and the Management Group. These monthly meetings began July 27th and each alternate meeting was designated a GENERAL vs A SPECIFIC TOPICAL meeting.

In the GENERAL meetings the managerial group reviewed the progress of the study, discussed the implications of the general data collected by the HRC team, suggested solutions to operational problems in the conduct of the study and cited implications of the data presented for operations.

The agenda for the SPECIFIC TOPICAL meetings was structured around specific data or information sought by the HRC Team. All persons interfacing the topic or training issue were originally invited to participate in the discussion of the data collecting process--from instrument development to findings. All members of the management forum, however, chose to attend the SPECIFIC TOPIC meetings as well as the GENERAL meetings. The HRC Team, therefore, had the benefit of the total management group in these discussions on specific issues. This procedure also provided an immediate social-interactive learning experience for the SEPTA personnel involved in the discussion of the designated topics or issues.

B. The Implementation Plan

The rationale for the Implementation Plan shown in Figure 2 reflects the sequential integration of data collection-analysis-feedback to key management-field observations-further data collection, etc. The Implementation Plan also provided for further feedback of data and information to selected work units for review, discussion and consideration (DISCUSSION AND DATA FEEDBACK TO WORK GROUPS, FIGURE 2). This step was discussed in relation to a feedback and discussion of some of the JOB SATISFACTION AND ORGANIZATIONAL CLIMATE SURVEY data to selected work groups, but this step in organizational process was not taken by management.

The Implementation Plan provided a balance between data collection via

diagnostic, base-line instruments and the gathering of information via personal contact and observation. Basic data in the manpower forecasting area and information necessary for a cost-benefit analysis of the training programs were not available and had to be abandoned. In fact, this shifted our emphasis from less intensive observation of each training program to how the HRD program might be better planned and implemented to serve SEPTA's needs.

C. Explanation of Terms in Plan

The explanation of terms cited for the work units in the Implementation Plan, Figure 2 are as follows:

PERCEPTION OF PROBLEMS BY KEY MANAGEMENT

This includes the insights shared both individually and collectively by SEPTA management personnel on HRD issues in the monthly meetings.

DATA COLLECTION AND DIAGNOSIS

The principal data collection instruments specially designed for this project during Phase 1 include 1) a Training Need Audit administered to key management (to assist in determining HRD Goals of SEPTA); 2) a Job Satisfaction, Organizational Climate Questionnaire administered to samples on six levels; and 3) topical data from field observations which is systematically recorded in these areas: personnel issues, management policies and practices, transportation, community (general), community (specific), training, central processes (reward systems, communications, delegation of responsibility, etc.), SEPTA politics, and union management issues.

FEEDBACK TO KEY MANAGEMENT

This is the process of sharing data and information collected with the SEPTA managerial system for review and discussion permitting HRC to 1) profit from such discussions and insights from SEPTA leadership and 2) make information immediately available for possible application by SEPTA managers.

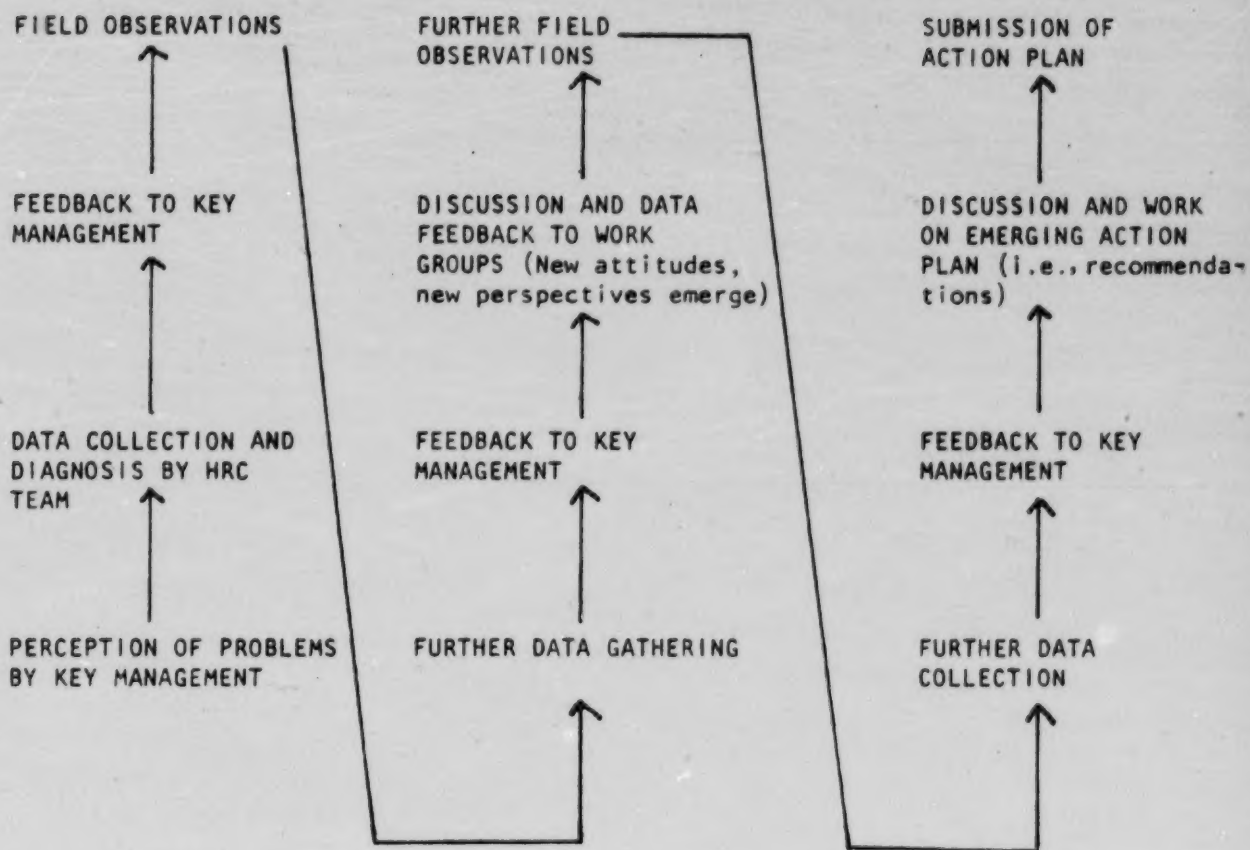
FIELD OBSERVATIONS

These included all participant observer activities by HRC team members; such as, 1) interviews with SEPTA personnel, and 2) observations of operations and training and active participation in training.

DISCUSSION AND DATA FEEDBACK TO WORK GROUPS

Some areas of data also may be fed back to work units and HRC staff be permitted to observe (and perhaps measure) whether new attitudes and new perspectives emerge. For example, it might prove very useful to discuss with selected work units their reaction to their group's perception of training needs or measures of job satisfaction and morale.

FIGURE 2
IMPLEMENTATION PLAN FOR
SEPTA HRD STUDY



DISCUSSION AND WORK ON EMERGING ACTION PLAN

The initial draft of the Recommended HRD Plan was first reviewed and discussed with the key management group of SEPTA before it was finalized and published.

D. Methods of Analysis

The methods of analysis utilized in the study vary as a function of the populations studied, the nature of the data available and the purpose of the analysis. These methods are made clear in the presentation and discussion of data ranging from a peer group analysis of productivity measures, to selected manpower data, to perceptions of job satisfaction and organizational climate by samples of six levels of personnel, to key management's perception of training needs at all levels of SEPTA's operation now and in the future.

E. Constraints

The HRC Team felt that it was constrained in its complex task by the following factors which in some cases influence our recommendations:

- 1) that throughout the project HRC had no official contact with the SEPTA Board, although Team members observed SEPTA Board meetings
- 2) that HRC was not commissioned in the study to study SEPTA's organizational structure
- 3) that although the Booz, Allen & Hamilton Consultant group was simultaneously studying SEPTA's organizational structure, the nature of its contractual agreement did not allow Booz, Allen, & Hamilton to share their findings until approved by the SEPTA Management Study Steering Committee, composed of representatives of Penn DOT, the City of Philadelphia, and the Counties of Bucks, Chester, Delaware and Montgomery.

F. Supplementary Information

In addition, it needs to be stated that some members of the HRC Team began the HRD study with considerable knowledge about SEPTA and its operations. Almost all members are or had been consumers of SEPTA's services, and two members of the HRC Team had served in technical consultative capacities to SEPTA and other urban mass transportation systems throughout the world. Moreover, HRC, from other programs it has conducted, had considerable knowledge about SEPTA's vital role in the infra-structure of the region it serves.

Chapter 3 Manpower and Personnel

A. Introduction

In this chapter and in the next (Labor Relations), the discussion will focus on several of the key factors affecting human resources development functions in SEPTA.

This chapter begins with a brief description of the evolution of the industrial-personnel relations functions; second, the importance of manpower planning is discussed as well as several attempts at instituting more effective planning; third, the employment process is depicted and commented upon; fourth, job evaluation and performance appraisal systems are outlined and discussed; fifth, specific reference is made to a 2-cycle Management Trainee Program conducted in the Mid-1970s; and, sixth, an analysis of turnover and internal mobility data is presented.

B. Evolution of the Personnel and Labor Relations Functions

The Employee Relations Department is a relatively recent addition to the SEPTA organizational structure. Prior to 1972, the major focus was on Industrial Relations. At that time, a manager was hired from a large industrial corporation to professionalize the personnel function. A period of rapid expansion of specific activities then followed, and a clearly defined personnel function emerged from the labor relations function and into the separate entity which exists today. Thus, the development and elaboration of employment, compensation, management development, and benefit and records systems resulted in the current organizational arrangement of the Industrial Relations Department reporting to the Assistant General Manager for Operations and the Employee Relations Department reporting to the General Manager.

In similar fashion, training and development responsibilities are also divided and report to different managers. Operator training functions are under the Transportation Division, and maintenance training is under the direction of the Employee Relations Department. Recently, the safety function was placed under the jurisdiction of the training manager in the Employee Relations Department.

The development of a broader, more inclusive approach to human resources development suffered a severe set-back with the sudden death of the manager associated with that initiative. This study is due in good part to that manager's vision and personal commitment. For various reasons, the future organizational support to human resources development is as yet unknown.

In sum, the definition and elaboration of a professional personnel function is a relatively recent organizational development in SEPTA. Reporting arrangements reflect this evolutionary process and present distinct problems of emphasis and coordination.

C. Manpower Planning

The importance of forecasting the level and structure of SEPTA's manpower requirements over time is obvious. Any organization must attempt to develop internally or hire from the outside sufficient human resources to fulfill its needs. At the present time SEPTA has no manpower inventory process. There are some manpower data available, however, which can be referred to at this juncture (See Table 3):

- The ratio of management and clerical workers to production workers (drivers, maintenance, etc.) is 25.4% for SEPTA. The figure was obtained by placing the number of "A" and "B" labor personnel over the "H" personnel.
- Personnel represents only .7% of total employees for SEPTA. There is only one senior recruiter in the entire department.

In sum, these data are extremely crude but do provide a basis at least to begin to analyze the level and allocation of manpower in SEPTA. Two additional sources are recommended. A recent DOT study includes data from SEPTA; the focus of Chapter 4 is on labor input accounts and is useful methodologically in relating the number of employees, man-hours and dollar labor costs.¹ Another study, published by the Pennsylvania State University, illustrates the "why" and "how" of personnel inventories, managerial demand and supply, and the role of a personnel system in developing human resources in urban mass transit. Data are also provided for comparative purposes.²

These studies not only document the importance of manpower planning, but offer suggestions on developing and implementing a plan.

Although no viable manpower planning system is now extant, SEPTA has made some efforts toward that goal.

In May, 1974, a report entitled "Proposal for Designing a Computer-Based Human Resource Information System" was prepared in the Employee Relations Department. A thorough and well-thought-out analysis of the need for such a system is presented in the first section. On page 3, the overall objective of such a system is stated:

The fundamental reason for computerizing personnel information is to increase the efficiency of SEPTA in meeting its obligations while minimizing costs through the better utilization of its human resources.

The concluding section of the report included recommendations that a feasibility team be created, the department budget finance such a study, and funds be provided in the future to construct a data

¹ A Study of Efficiency Indicators of Urban Public Transportation Systems, United States Department of Transportation, Washington, D.C., January, 1977.

² Managerial Resources and Personnel Practices in Urban Mass Transportation, Pennsylvania Transportation and Traffic Safety Center, The Pennsylvania State University, November, 1973.

TABLE 3
MANPOWER COMPOSITION OF SEPTA

By Division and Payroll							
April, 1977							
DIVISION	TOTAL	Managerial (A)		Clerical (B)		Hourly (H)	
		N	%	N	%	N	%
Railing S&S-City	1206	130,	18.8	27	22	1049	87.0
Transportation City	3603	340,	9.4	130	3.6	3133	87.0
Facilities City	792	118	14.9	34	4.3	640	80.0
Purchasing & Stores City	53	23	43.4	23	43.4	7	132
Public Relations City	52	23	44.2	29	55.8		
Personnel City	44	34	77.3	10	22.7		
Claims City	83	35	42.2	48	57.8		
Finance City	156	81	51.9	62	39.7	13	8.3
Transportation Red Arrow	355	26	7.3	28	7.9	301	84.8
Maintenance Red Arrow	187	15	8.0	6	3.2	166	88.8
General Office Red Arrow	13	8	61.5	5	38.5		
Transportation Trenton	9					9	100.0
Transportation Frontier	19					19	100.0
Maintenance Frontier	6					6	100.0
General Office Frontier	4	4	100.0				
Rail & Planning	121	121	100.0				
TOTALS	6703	958	14.3	402	6.0	5343	79.7

base and recommendations from the study be implemented.

Members of the Employee Relations Department continued to study and make recommendations with regard to manpower planning in the period 1974-1976. A manpower planning strategy document entitled "Manpower Planning -- An Overview" was circulated in late 1975 or early 1976. This document cited the relevant factors making planning especially crucial to SEPTA's viability. Also included in the document was a specific Manpower Planning Program and a plan for its implementation.

The two efforts mentioned above were never acted upon by management. In June, 1976, proposals to develop the EDP capability to build an automated manpower planning system were allowed to remain "in limbo." Thus, a major planning and study effort on an absolutely essential tool for achieving efficient utilization and development of human resources is still in an inactive status. SEPTA, of course, is not unique in not devoting resources to manpower planning. The mass urban transit industry is noteworthy for its general lack of commitment to organizational and manpower planning programs and the resources needed to operate them.³

Several other relevant reports and matters merit some comment since they, too, are related to manpower planning.

In November, 1976, the Employee Relations Department developed a proposed "Management Succession Program." It stressed the need for and specific steps to implement an executive succession program. The recommended procedure consisted of an audit of key positions, plans needed to adjust to future organizational changes, and the means to do so. Charts and examples illustrated the text. The two concluding paragraphs are particularly appropriate for this study of SEPTA's human resources development needs:

The real key to all strategies in the management of executive human resources is the development of the individual executive. Human resource development programs aimed at meeting the appraisal needs of both the individual and the organization should be directly related to each segment of the manpower plan.

An important starting point for building tailored development programs is a realistic assessment of the organizational environment as it pertains to executive growth. Such environmental factors as compensation levels, attitudes, promotional opportunities, performance requirements, and work relationships among executives have a strong and direct influence upon the individual's motivation for self-improvement. A systematic evaluation of the organizational environment against a background of both executive and organizational needs will point to specific changes that should be made to assure an effective environment for executive development.

³ It should be noted that SEPTA was in a hiring freeze at this time which put an extra strain on manpower shortages that already existed.

The paragraphs quoted reinforce the Human Resources Center's philosophy and, in particular, the use of diagnostic procedures to explore the variables mentioned, as well as others.

In an earlier analysis of executive age, the Employee Relations Department attempted to document the need for manpower planning by pinpointing future manpower needs. The consequent importance for recruiting and development and training are clearly apparent. The report found in May of 1975 the following:

	<u>Average Age</u>	<u>Average Service</u>
General Managers Staff	49 years	13 years
All 4th Level Management (1 line)	50	12
Planning and Development	51	17
Operations	54	18
Rail	49	2
Finance	52	22

Like the ones mentioned earlier, this attempt is indicative of the effort to analyze and organize information to enhance manpower planning, but it never came to fruition.

One final reference is now made to SEPTA's future manpower needs. The Authority is attempting to plan for the new skills which will accompany significant technological changes. First, there is a recognition that the new vehicles which will replace the ones currently in use will require vastly different maintenance skills. Specifically, SEPTA must develop electronic technicians to maintain future transportation systems. Current employees, with rare exception, do not possess the scholastic background to adapt easily to the new job requirements. As a result, a nucleus of 6-8 technicians is being used as a cadre to begin developing the capacity to maintain the vehicles of the future. This, then, is an example of an anticipated manpower need's being recognized and some effort, at least, being exerted to prepare for the future.

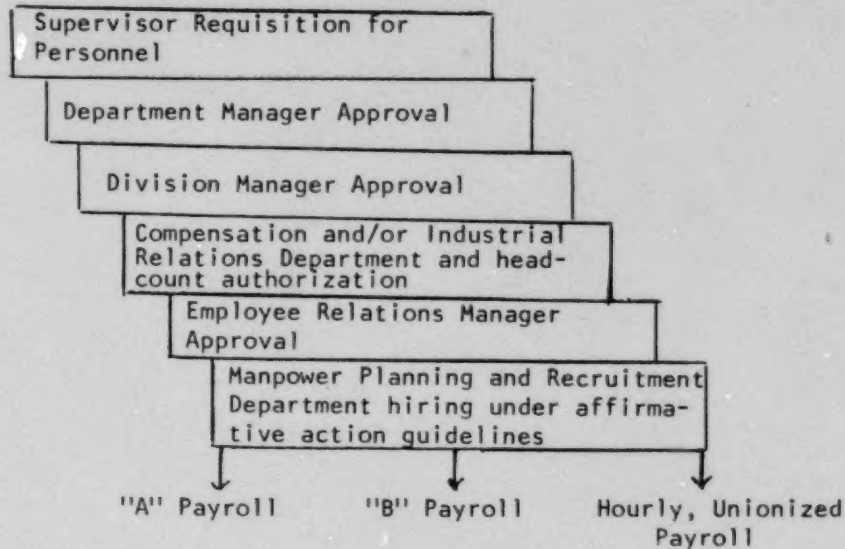
Second, the conversion of 15 sub-station control centers from manned rotary rectifiers to solid state rectification units controlled from a central point has required special manpower planning and training efforts. This transition illustrates a serious problem in that training must be undertaken in many areas for relatively few employees; i.e. wide demand with limited depth.

The following sections of this chapter focus upon specific elements of the personnel program in SEPTA with an eye toward their implications for the development and training of human resources. Specifically, the employment process is discussed first, then, in order, job evaluation

and compensation, performance appraisal, the defunct management trainee program, and promotions and other aspects of internal mobility and turnover.

D. Employment Process

SEPTA, until 6 months ago, was in a hiring freeze. A brief outline follows which indicates how each of the three major employee groups is hired:



"A" Payroll

1. Job evaluation review if required
2. Job posted
3. Recruit through advertising if not filled from within (minimum of three candidates)
4. Selection - interview by "selective bundles" approach
5. Final Selection - approval by General Manager, Chairman of Board of Directors, and Board
 - a. <\$10,000 per year - General Manager authorizes
 - b. \$10,000-15,000 - General Manager plus Chairman of the Board
 - c. >\$15,000 - General Manager, Chairman of the Board, Personnel Committee of the Board, and fewer than four negative votes of the entire Board required
6. Physical examination given but no reference checks made
7. Orientation in Employee Relations Department

"B" Payroll

1. Job evaluation review automatically made
2. Check "standing transfer" file
3. Check applicant pool
4. Selection: Interviews plus performance tests, licenses, etc. where appropriate
5. Physical examination plus reference checks
6. Orientation in Employee Relations Department

Hourly, Unionized Payroll

1. Job evaluation review automatically made
2. Check "standing transfer" file
3. Check operator applicant pool
4. Advertise for technical/skilled openings; use special agencies to broaden labor market search under Affirmative Action plan
5. Operators - interviewed and hired by Employee Relations Department personnel
6. Maintenance employees - interviewed by Employee Relations Department representative and line supervisor
7. Physical examination and reference checks
8. Maintenance recruit - orientation in Employee Relations Department and Maintenance Schools
9. Operator recruit - orientation in Employee Relations Department plus 19 days training for bus drivers and 14 days training for rail operators

Some additional comments are in order regarding the selection process.

First, we review the role of the SEPTA Board in the hiring process for managerial or "A" payroll personnel. The Board exerts some measure of control in selection to (1) avoid nepotism, and (2) monitor who is employed at this level. An applicant for a job paying over \$15,000 per year must subject himself to the following process: all open requisitions are given to the Secretary of Board, with an indication whether it is a replacement, addition, etc. The Employee Relations Department, with the requisition, begins outside recruitment if there is no qualified candidate inside SEPTA. The "best candidate" is notified that employment is contingent on Board approval. Three months may go by between recruitment/selection and final approval by the Board. The "best candidate" often cannot or will not wait for this process to be completed. Thus, SEPTA often loses its best candidate, settles for second or third best, or must begin the whole process anew. This is obviously a cumbersome and costly process that impedes the hiring of talented managerial manpower.

The second aspect of the selection process concerns equal employment opportunity and the composition of SEPTA's human resources. There are several issues directly associated with the make-up of the internal labor force: lack of females at the upper levels of the "A" payroll, the lack of Blacks in upper management, and lack of female representation at higher levels. As of November, 1977, the EEO-4 report documents the following breakdown:

Total employees	6,540
White males	4,065
Black males	2,000
Hispanics	44
Asians	1
American Indian	3
Non-Hispanic white females	296
Black females	128
Hispanic females	1
Asian females	35

Officials and Administrators	4 females (all white)
Professional	28 females (5 non-white)
Technicians	7 females (all white)
Para-Professionals	8 employees (1 non-white female)
Office and Clerical	182 employees (47 non-white females)
Service and Maintenance	198 employees (78 non-white females)

Employment priorities have resulted in the hiring of more females, Blacks, and Hispanics, but not in skilled and managerial jobs. At the higher job levels of SEPTA, the situation has actually worsened, since younger and better educated employees of all descriptions are leaving (discussed in greater detail later in this chapter).

Affirmative action programs to effectuate equal employment opportunity require the participation of women and minorities in all areas of employment. SEPTA's pattern of employment clearly indicates the need for additional and more effective hiring, training, and promotional policies and efforts. The need for greater employee development and training stands out in this study.

A final aspect relating to hiring involves two attempts to improve selection procedures. The Employee Relations Department explored the possibility of developing validated tests to meet EEO requirements and improve the selection of executive secretaries. Also, a report was issued in an attempt to develop a weighted application blank to improve the selection of bus and rail operators. These efforts, like others mentioned previously, seem to have been put in "limbo". No discernible action was taken to refute, revise, or implement the proposed recommended actions.

One function of personnel management that is crucial to the success of many others is the process of job analysis, description, and evaluation. Relevant comments on this area are made next.

E. Job Evaluation and Performance Appraisal

Job analysis, description, and evaluation are carried on in both the Employee Relations and Industrial Relations Departments. The "A" payroll responsibility falls within the Employee Relations Department, and the Industrial Relations Department handles the "B" and hourly payroll employees.

Position descriptions for "A" payroll employees were begun at the end of 1974. A 10-week training program for all managers was instituted to acquaint them with the new system, and it was installed in January of 1975. It was felt that the evaluation program provided the foundation to establish true job grades and to improve recruitment and hiring procedures measurably.

Hand-in-hand with the job evaluation system, Employee Relations also began looking at the performance appraisal system. In April of 1975, the new "short form" was instituted by the General Manager, which, in fact, was an early version in the attempt to develop a suitable instrument. The "SAM Performance Appraisal" form leaves much to be desired in format and in adherence by the line organization.

The job evaluation process, planned to be linked with an EDP human resources system, has not been developed further. The performance appraisal system has been "polluted." The Employee Relations Department has not been able to enforce and monitor the system and influential or powerful line managers have been able to ignore, go around, or devise their own appraisal techniques. Employee or manager challenges appear to make a mockery of the appraisal system as well.

Job evaluation has fared somewhat better than performance appraisal. The job audit procedure is a major tool in organizational design and acts as a clear standard by which one can highlight or measure political accommodations.

Unionized employees' jobs are evaluated by the Industrial Relations Department, which handles wage administration matters as well. This process is highly technical and structured with close monitoring exerted by both the Department and the Unions. There is no formal employee evaluation process for hourly employees; seniority is by far the most crucial determinant for personnel actions for that group of SEPTA employees.

The apparent disarray of the job evaluation/performance appraisal system is especially worrisome for "A" payroll employee personnel actions. The proper development of a hierarchy of jobs, proper job specifications, and performance standards and system of measurement are absolutely necessary for the efficient and fair utilization and development of an organization's human resources. The deficiencies in the development and operation of the job evaluation and performance appraisal systems cited above must be attended to if training and development goals are to be effectively established and achieved.

SEPTA ran a management trainee program for a short period during the 1970s. It is deemed important to discuss that program, which was administered in the Employee Relations Department, because of the lessons it provides for any future management development efforts SEPTA may care to make.

F. Management Trainee Program

SEPTA ran two management trainee cycles before dropping the effort. The first program commenced in November of 1972 and lasted two years; the second began in February, 1974 and ended 18 months later. The first group of trainees were considered to be "high potential people" who were recruited mostly from outside of SEPTA.

The training program itself was "very flexible." Trainees had too much to say about what they would do and when they would do it. One very serious drawback in the program was that there was no planning of where trainees would go once the training ended. As a consequence, a letter went out asking managers, "Do you need a graduate?" when the program ended.

In light of the above situation, the Employee Relations Department conducted a survey of training programs in other organizations and transit systems in order to improve the Management Trainee Program. The survey, conducted in the fall of 1974, resulted in a report dated October 18, 1974.

The survey had little, if any, effect on the operation of the program. One basic change, however, of great significance was that most of the trainees in the second (and last) cycle were recruited from within SEPTA and possessed more specialized skills. Turnover will be discussed later in this chapter, but it is important to note that over half of the 14 management trainees have left SEPTA.

The overall conclusion in respect to the trainee program is that it was mismanaged. There is some feeling that enrollees should not have been allowed to complete the program with the expectations that they would be guaranteed a position in management. But none of the above should diminish the fact that an attempt was made to bring into and develop with SEPTA a young, high potential group of future organizational leaders. This was a new and radical departure for SEPTA, and produced visible results. What is most discouraging is that most of those trainees, some of the organization's most capable employees and potential top managers, have left.

Just a brief comment before turning to the next section. Apparently, David Rosen, just before his tragic death, was working on a "SEPTA Transit Institute Program" to orient community leaders to the organization's activities. The program was to be 5 days long. Obviously not completed or operational, it nevertheless represented another attempt to develop innovative programs with a high potential to help meet SEPTA's human resources development goals. The next and final section of this chapter discusses employee turnover and internal mobility.

G. Employee Turnover and Internal Mobility

Several attempts were made within SEPTA to analyze turnover. The "Transit Industry Turnover Report" was not prepared until the first quarter of 1977 by a Manpower Planning Analyst in the Employee Relations Department. The survey was distributed to survey participants and SEPTA management. The reason the report was dropped was that the external participation declined as did the interest within SEPTA's management. The major areas included in the survey were separations, accessions, and average number of employees on the payroll. Each of these was broken down by the major employee groups in the organization.

A second SEPTA survey analyzed SAM separations from June 1, 1976, to January 1, 1977. The purpose of the analysis was to assess the effects of the recent (May, 1976) lay-off and subsequent salary rollback ⁴ on turnover. A memo asking whether management found the report useful and if the format should be repeated on a semi-annual basis was never answered, and the effort apparently died.

For the period cited above, 39 employees resigned (10 in finance), 3 died, 3 were fired, 2 were laid off, and 15 went on pension, for a total of 62 separations (49 males and 13 females.)

These two efforts to survey and analyze employee separations would appear to be useful for planning and diagnostic purposes. Nevertheless, they were not adopted, continued or used.

As part of the Human Resources Center's study, an analysis was made of 26 payroll "A" employees who resigned from SEPTA within the last 24 months and had exit interviews. The average age of this all-male group at time of separation was 29.5 years with an average tenure at time of separation of 2.74 years. All but 4 of the 26 had 16 or more years of education.

The reasons for leaving can be categorized into 4 sections: wage related, advancement opportunities, job content, and management processes (Table 5).

The following percentage figures represent how often each of the preceding categories was given as a reason for leaving:

	<u>%</u>	<u>N</u>
Wage related reasons	28	21
Advancement opportunity reasons	20	15
Job content reasons	16	12
Management process reasons	24	18
Miscellaneous reasons	11	8

Salary related reasons for leaving is the most frequently given reason. It should be noted, however, that the distribution is not overly weighted towards any one factor. A further breakdown within the categories shows the following more specific reasons for leaving:

TABLE 4
Specific Reasons for Leaving Position

	<u>%[*]</u>	<u>N</u>
<u>Wage Related</u>		
Dissatisfaction with present salary	38	8

*Percentages are intra-category.

⁴A temporary 6-week rollback in salaries for SAM personnel whose legality was questioned; a retroactive reinstatement made a challenge moot.

TABLE 4

Specific Reasons for Leaving Position

	<u>%</u>	<u>N</u>
Limited future salary growth	38	8
Better offer elsewhere	24	5
<u>Advancement Opportunities</u>		
Greater advancement elsewhere	67	10
Dissatisfaction with opportunities at SEPTA	33	5
<u>Job Content</u>		
More interesting work elsewhere	83	10
Better working conditions	17	2
<u>Management Processes</u>		
Undefined management objectives	50	9
Dislike of management policies	28	5
Unfair treatment	22	4

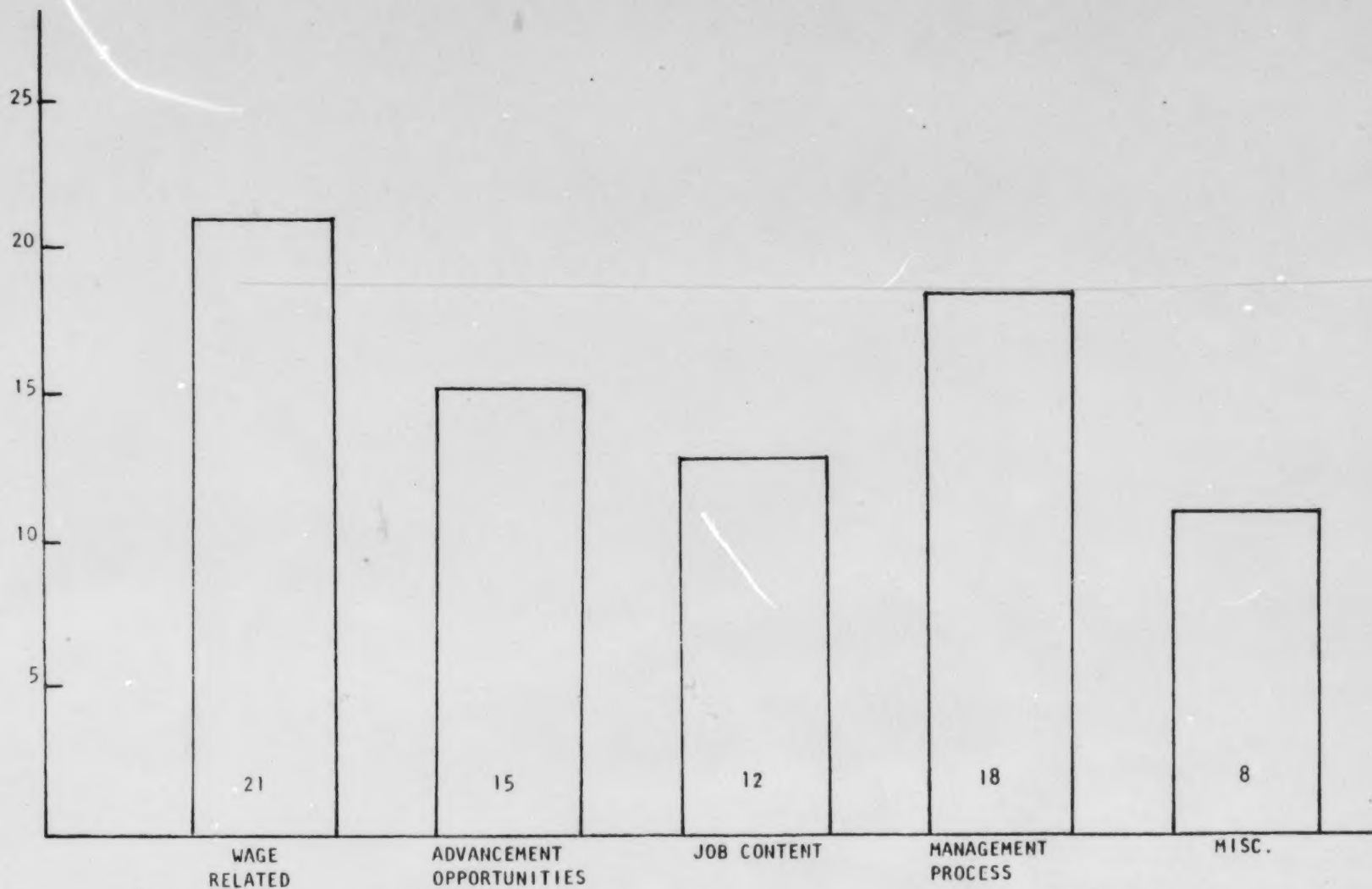
Please note that the number of reasons is greater than the 26 employees who left, since the employees could give more than one reason. The relative importance of the data is unaffected, however.

These data on turnover document in limited fashion the problem of maintaining a productive work force and the need to make such analyses on a continuing basis. The data on recent management losses document a very serious problem at SEPTA: the loss of managerial employees on which the future viability of the organization rests is a serious problem.

The younger, better educated, and more mobile managers are resigning for a variety of reasons: they do not have as much invested in the organization; they are more attractive to prospective employers; they are sensitive to the general unhealthy tone that exists in the Authority; they experience a feeling of insecurity due to the general uncertainty that pervades the Authority; and, they felt outrage at applying for unemployment compensation during the recent strike.

The management employees who leave are mainly in technical, analytical, and administrative jobs, including a substantial number of engineers. There are, in fact, very few operating managers who terminate voluntarily. The specialists have the skills that provide the mobility to effectuate job changes. Service supervisors, on the other hand, have little opportunity to transfer their skills and, consequently, are not as a group mobile.

Number of
times
indicated
as reason
for leaving



General Categories of Separation Reason

TABLE 5

These factors are also reflected in the following statistics provided by SEPTA: since January 1976, 134 "A" payroll employees (including 20 secretaries) have left. Of that total, 124 quit voluntarily and 10 were either fired or laid off. An additional 73 were pensioned or died making a total of 207. Of about 5,000 hourly employees, about 75 to 100 quit voluntarily. People in this latter group traditionally do not leave. This stems from the relatively high pay the hourly employees enjoy. They don't leave voluntarily, and the union contract protects them against being fired easily.

For the period December, 1975 to December, 1977, "A" payroll employment fell from 1,004 to 920, a drop of 84. To some extent, these employees were replaced by "B" payroll or hourly employees. If, for example, a supervisor leaves, the next in line takes over until the "B" payroll employee is used as the replacement at the lowest level. One of the major problems created by this process is a general and continual diminution of the management group with a real shortage of backup employees for the top management jobs. The freeze, however, has been partially lifted for the last 6 months, so, hopefully, SEPTA is replenishing its managerial resources to some extent. The reinstatement of the Management Training Program would also help measurable if it could be improved as recommended in Chapter 7.

As the above data graphically demonstrate, turnover is a most serious problem at SEPTA. But now we turn our attention to internal mobility within SEPTA, with particular reference to promotions.

There is little data readily available within SEPTA to diagnose mobility patterns or the effectiveness of the promotion from within policy. But the processes can be outlined and discussed.

"A" payroll employees do not enjoy much opportunity for advancement as a group. It is easier to get on "A" payroll than move within that category. One-half of the "A" payroll is made up of foremen, supervisors, and instructors. These employees rarely move into other areas of management and have little opportunity to move up otherwise.

A rough analysis of SAM positions posted from September 3, 1975 to March 20, 1978 reveals that a total of 136 jobs was listed to be filled. Of these, 87 were finally filled -- 63 from within SEPTA (promotions) and 24 from the outside labor market. Incidentally, 2 employees refused promotion when offered.

This is the job-posting procedure for "A" payroll jobs. The "Notification of SAM Position Opening" is posted for 2 weeks at all locations of SEPTA. The "Internal Placement Program -- Employee Application for SAM Position" form must be filled out for all internal candidates. After the 2 week posting period the requisitioning manager decides whom he wants to interview. Interviews are then arranged in the Employee Relations Department and for the requisitioning manager.

The decision is then made to promote or go outside to fill the position.⁵

One aspect of the filling of "A" payroll jobs merits special comment. A promotion can be made by management within a department without posting. Thus, promotions may take place in complete secrecy and without an opportunity to challenge the decision. This procedure can be abused, although no data substantiate that it has, in fact, happened.

The "posting" procedures for the "B" and hourly payrolls are handled differently.

The TWU group is usually involved with transfers rather than promotions. A driver generally must be "on the property" one year before putting in for a transfer. Typically, a driver wants either to transfer to a different location (can do this after 6 months) or transfer to a maintenance job. A driver moving from one location to another is handled by a superintendent; i.e., in an intra-departmental move.

A driver's request to transfer to maintenance is filled in the Employee Relations Department. Names are placed in a cross-reference file that lists names, seniority, and desired job(s). If a job opens up, the top 10 seniority drivers are notified and have 7 days to indicate interest. Final selection is based primarily on seniority and qualifications (discussed in detail in the next chapter).

The procedure for the "B" payroll is quite different. IBT members can file for promotion after 6 months -- there are no lateral moves or requests for demotion. If an employee is not promoted, however, he or she may request a lateral transfer before someone is hired from the outside. From this point on, the procedure is the same as for TWU driver members.

About 10 transfer requests are made each working day. Most of these involve TWU members who want to "get off the street," want cleaner jobs. (Cashier jobs are kept open for disabled drivers.)

IBT applications usually come in bundles. That is, dissatisfaction develops in a particular department or under a certain supervisor. When openings arise otherwise, employees tend not to be interested.

Note that a job is not posted if it is filled from the transfer file. A transfer, either a lateral move, promotion, or demotion with pay cut (TWU only) accounts for most of the internal mobility. At present, SEPTA is hiring about 8 operators a week.

Two problems emerge from the system(s) described above. When management fails to ask employees in their own department first before posting system-wide, those employees become angry and upset. Second, an employee

⁵ As a result of the recent layoff and freeze, a March, 1977, policy states that all "A" payroll jobs need not be posted, and a supervisor does not have to release a subordinate for promotion if it is felt that the employee is essential in his or her present job.

must qualify before promotion into a new job. Since there is no O.J.T., the supervisor can give exposure to the employee he approves of and, thus, it is claimed, give a competitive advantage to that employee for promotion.

The analysis of employee turnover and the internal movement of employees reveals the workings of the internal labor market of a firm. SEPTA's data and policies and procedures reveal a number of concerns that merit attention. The implications are also clear for ensuring an adequate supply of manpower to meet present and future organizational needs.

In summary, this chapter has dealt with the organization of the industrial-personnel relations functions, manpower planning and related matters, employment process, job evaluation and performance appraisal procedures, Management Training Program, and analysis of turnover and mobility data and procedures. The next chapter is concerned with the labor-management relationship in SEPTA with particular reference to training and development and productivity improvement.

Chapter 4 Labor-Management Relations

Labor relations encompasses the relationship between SEPTA and its organized or union employees. The wages, hours, and conditions of those employees are established through collective bargaining. This chapter, like Chapter 3, discusses a select list of topics which are thought to be particularly relevant to employee development and training within SEPTA. After a brief introduction, the structure and environment for training is depicted. Next, the mechanics of training approaches, patterns, selection processes, etc., are discussed. The Maintenance Training School is then discussed in some detail. Finally, a joint labor-management approach to improving labor productivity is analyzed.

A. Introduction

It is desirable to outline very briefly several characteristics of urban transit systems as background to understand the specific topics treated in this chapter. Urban transit, for example, is a declining industry. Specifically, the industry is characterized by fewer systems and riders, obsolescent plant and equipment, poorer service, and greater and greater dependence on governmental support. Service, maintenance, and administrative costs exceed operating revenues generally. In fact, many public systems have been abandoned since the peak post World War Two years. Employment in urban transit has fallen almost 50% since the peak period, also. Future prospects for employment are poor; projections indicate that new employees will be hired largely as replacements rather than as net additions to the labor force. Finally, changes in labor productivity are difficult to measure, although knowledgeable observers estimate no significant increase and lean toward a probable decrease within recent years.

B. The Industrial Relations Department

The labor relations function split off from the personnel relations function in 1974. There are currently 6 employees in the Department. The major responsibilities and functions of this group include policy formulation for organized employees, negotiation and administration of 8 agreements, and job evaluation and wage administration for union employees. In addition, the group handles grievances (all 4 steps including arbitration), EEO cases, and legal matters handled outside of the courts. Finally, the Department engages in research activities, administers the Maintenance Training School and conducts periodic training of line managers in labor relations topics.

At the time of the split (1974) of the personnel and labor relations functions, top management decided that one man (the Executive Officer in charge of Personnel and Labor Relations) could not effectively supervise both areas under the circumstances that prevailed at that time. It was therefore decided to have Industrial Relations report to the Assistant General Manager for Operations, and Employee Relations report to the General Manager.

The separation of these obviously inter-related functions creates problems of policy and coordination. For example, "A" payroll wages and benefits flow from unionized employees. Therefore, there is a real need for greater coordination of these functions. Job evaluation and wage administration provide another case in point.

Other examples exist as well. One situation, however, merits further comment.

Transport Workers Union # 290 represents supervisors in SEPTA. The "Union" is not formally recognized by the Authority, but enjoys consultative status under Public Law 195 in Pennsylvania. An interesting situation arises in that Industrial Relations representatives train "organized" supervisors in administering the TWU # 234 contract to their subordinates, while the Employee Relations representatives deal with the same supervisors on a "meet and discuss" basis with regard to their own grievances.

It is appropriate to note again that the training function, too, is structured in a dispersed fashion. As mentioned previously, maintenance training classes are under the Employee Relations Department, operator training exists under the Transportation Division, and line management training on labor relations is conducted by the Industrial Relations Department which reports to the Assistant General Manager for Operations. The Industrial Relations Department is also responsible for administering the Maintenance School, which will be discussed at length later in this chapter.

There appears to be mutual respect between the representatives of both labor and management. Union leaders, however, verbalize several attitudes which are cause for concern.

C. Union Leadership Attitudes

The view of SEPTA held by the leadership of TWU # 234 is not positive. They feel with the creation of the Authority, "politics took over." They also feel that the SEPTA Board should be more representative: there is no minority member now serving on the Board; that SEPTA management attempts "to rule" by "instilling fear and demoralizing employees;" and that there is no positive managerial strategy to motivate employees to promote mutual interests.

What is worthy of note is that the union leadership is generally antagonistic towards SEPTA's labor relations policies and has strong negative feelings about several line managers. Even discounting the ideological and narrow self-interest nature of

some of the leadership's statements, there is lots of room to improve communication between the parties in areas of mutual interest.

One significant incident occurred recently which may be indicative of things to come. The new leadership of TWU #234, the Director of Industrial Relations, and the Manager of Maintenance Training visited the Fern Rock training center to observe operations there. The Union Leaders were very impressed with what they saw. Apparently, they had been unaware of the training facility, what was being done there, and how it was serving the interests of their membership.

This is the type of positive communication and potential cooperation which can do much to alter some of the union leaders attitudes characterized above. The importance of a more positive relationship to enhance training objectives needs no further elaboration.

Some of the bases for these negative attitudes will be dealt with later in this chapter when the availability of training and promotional opportunities is discussed. Next, some procedures that affect opportunities are analyzed.

D. Internal Mobility and Training

The Industrial Relations Department maintains the seniority records for SEPTA. The Department monitors Form #3114 'Change of Status Form' to make sure that every move within bargaining units is in conformity with the appropriate labor agreement. Seniority is crucial to numerous decisions affecting employee mobility (as well as other important aspects of union jobs), so it is natural that an elaborate control system was established in the Industrial Relations Department.

The seniority lists maintained by the Department are the "official" lists and are the final arbiter of any dispute that arises. In accordance with the labor agreement with the TWU #234, manuals are being prepared for each department which will serve as the basis of equitable treatment on employee moves.

Information regarding promotions is gotten by employees from their supervisors and inter-departmental transfers are arranged (through the process already described) by the Employee Relations Department. The Union complains that job openings are not posted adequately. There is no job bidding system per se in the TWU #234 bargaining unit. In general, the senior man who is qualified to fill the higher job gets it. Seniority rather than merit plays the key role in the promotion process. The senior person if qualified is given the first crack at the job. The determination of who is or is not qualified as well as how one becomes qualified is of utmost importance.

Progression through the ranks from a helper position to a top-rated mechanic is based on qualifications that are obtained by on-the-job training or formal training courses that are substituted for job experience. Thus, either O.J.T. or formal classroom training is a prerequisite for promotion.

The attainment of qualifications for promotions is a process which can lead to abuse and discriminatory treatment of employees through job assignments. Several issues in this regard will be discussed in the following order: "on-the-clock" training, "off-the-clock" training, and hiring for higher-level jobs from outside the Authority.

"On-the-Clock" Training: provided mostly for maintenance employees as means for promotion.

"Off-the-Clock" Training: training available for drivers and operators (beyond current position). On-the-Clock training is given first few weeks to qualify as operator.

New Hires: the increasing emphasis on improving labor productivity has emphasized qualifications as criteria for promotion. As a result, more people are being hired from the outside in the higher rated maintenance jobs.

The issues stated above color the TWU #234 attitude toward training and development.

The "old" method of attaining qualifications for promotions was OJT through the "buddy" system. In a sense, there was a "doubling up" of the workforce to train employees as replacements and for promotion by allowing workers to replace temporarily absentees or employees on vacation. Most prior training took place by this method. The "new" approach of formal classroom training, and the direct recruitment of skilled workers from outside the Authority, reflect the practice of industrial training more closely. The Union, however, feels aggrieved that austerity and the reduced level of employment have forced SEPTA to drop the "buddy system."

Further, the Union feels that transportation employees have to take the initiative to get training, and that there is little encouragement or support from management. In addition, there is little opportunity for upward mobility for drivers and operators.

Maintenance employees, on the other hand, have a definite line of progression, but selection for O.J.T. opportunities and formal classroom training slots is done on a very subjective basis. Union employees are free to take courses "off-the-clock" but selection for "on-the-clock" training is more desirable and subject to supervisory discretion. The following comparison is useful to summarize some of the points made above:

	<u>Drivers and Operators</u>	<u>Maintenance Employees</u>
Entry Selection:	Drivers license plus physical and moral standards	Enter "school" based to a degree on mechanical experience and aptitudes
Progression:	No career ladder-only supervisory positions ⁶	Career ladder-car cleaner to "Q" mechanic ⁶
Training:	Mainly "off-the-clock"	Mostly "on-the-clock"
Selection for training:	Completely arbitrary- depends on "who you know" or special "sponsor" or "Godfather system" ⁶	Arbitrary assignments to get experience on the job or pass qualifying tests ⁶

⁶The arbitrary and discriminatory aspects of selection were bitterly alluded to by several Union officials.

Supervisory jobs are posted by management. The feeling is that the interviewers "look at you personally and who sent you." Sponsorship, i.e. the "Godfather" system of selection, is alleged to be the means by which one progresses into and up in management.

In non-management promotions, how an employee becomes qualified to step up is the crucial factor. A supervisor can show favoritism in picking employees for special assignments which enable that individual to meet experience/training or test qualifications for the promotion. In a phrase, the belief is that "who you are determines the future in SEPTA."

The Union is also disturbed about management's alleged practice of going out increasingly to the external labor market to recruit skilled mechanics to fill the more demanding jobs. There tends to be higher rates of turnover in the better jobs as "newcomers" depart for greener pastures.

Old-time SEPTA employees on the lower level jobs, however, stay on, do not move upward, and become discouraged and discontented. This low morale, according to Union officials, is the direct result of less O.J.T., due to the cut-back of personnel and end of the "buddy system" and no training made available to qualify "on-the-clock."

The point is made that few employees are so highly motivated that they will go to class after 8 hours of work, especially when they work at physically demanding jobs like laying track.

What recommendations would Union officials make, then, to improve morale and productivity?

- SEPTA should provide more "on-the-clock" training -both OJT and and classroom- and also schedule training so that employees on rotating work shifts can attend.
- Increased training effort is required to improve operations generally. Employees are not currently properly trained to function well in their jobs. It was stated that operator training is a notable exception.
- Improve hiring standards. Presently, if an applicant is 25, married with 2 children, and buying a house, he or she has a good chance of being hired. Feeling communicated was that management standards are too low. New employees are presenting problems as far as morale, attitudes, and output are concerned. Management hiring practices create problems for Union, too, in the same areas.

An innovative program to facilitate hiring in entry level jobs was negotiated by the Industriail Relations Department and TWU #234. The creation of the Maintenance Training School was a significant development facilitating the training and upgrading of employees. The Maintenance School is discussed in the next section.

E. The Maintenance Training School

RS&S Management in 1972 saw the need to strengthen human resources. At that time RS&S started the Foreman & Superintendent Supervisory Training Course. This was further expanded to include a cross section of "A" Payroll people. After the entire course had been given twice, responsibility for continuation of this course was transferred from RS&S to the Employee Relations Department.

Late in 1972, while the above courses were in progress, a plan was devised for both the curriculum and construction of the school and both proceeded. Mr. Flood and Mr. Jackson, Superintendents of Bus Maintenance and the Broad Street Subway Maintenance, respectively, were put in charge of the design of the curriculum to coordinate and work with Facilities in the construction of the school. The Maintenance Training School (MTS) program was formally established in March, 1973 under the direction of the Industrial Relations Department. Effective on that date, "all new hires into the entrance sections will be hired into the Maintenance Training Group and will accrue no seniority other than Authority seniority."

The purpose of the MTS program is stated as follows:

The Maintenance Training School provides on-the-job training and mechanical familiarization for those employees hired with mechanical aptitude and skills who may be able to progress into A,B,C, or D classifications if they meet all qualifications.

The rate of pay was set at \$3.66 per hour for the first 6 months, and one half of the difference between \$3.66 and the top "A" rate of pay if still in the MTS, or if made regular, then one half between \$3.66 and the top rate of A,B,C, or D, whichever is applicable for the second 6 months. A 60-day probationary period was established (later changed to 90 days).

MTS trainees are given training while in the School and work generally on all types of work which is performed in Classifications A,B,C, and D. After they complete the training, the trainees are assigned to vacancies in the RS & S, and Facilities Departments. They are assigned strictly on the basis of qualifications, however, and seniority will not control in those instances. Trainees remain in the MTS until they are promoted.

A special performance appraisal sheet was developed by the Industrial Relations Department. The form was to be filled out by the trainees' supervisor and forwarded on a weekly basis to the Industrial Relations Department.

The trainees receive O.J.T. in the MTS, basically from the supervisor. Weekly evaluation sheets are filled out, and there is counselling provided. The trainees are developed through a "team concept"; that is, groups of 2 or more, through a "buddy system", or by a "leadman," (a TWU member who receives 10¢ per hour more for the additional responsibility).

The trainees are moved into regular Classifications as soon as the openings occur and their qualifications permit. There is no line of progression within the MTS itself, only promotion into regular jobs.

Under the Maintenance Custodian Program, someone with no demonstrated mechanical skills or background could enter as a custodian, move into the MTS, and progress through the maintenance career ladder. On the other hand, an individual who could not meet requirements in the MTS could be demoted, so to speak, into the Maintenance Custodian position.

The MTS program produced 1 graduate who is a foreman, and 3 others who are in skilled craft classifications. On the average a trainee stayed 4 months in the MTS, and some moved out after only 4 weeks.

For the period December 9, 1975, to January 4, 1976, enrollments were as follows:

Maintenance Training School

RS&S	48 Whites	24 Blacks	2 Hispanics-	74
Facilities	16 Whites	12 Blacks	0 Hispanics-	28
			Total	102*

Maintenance Custodians

RS&S				0
Facilities	3 Whites	2 Blacks	0 Hispanics-	5
			Total	5

The layoff of SEPTA employees a few years ago also resulted in 5 Maintenance Trainees and 2 Maintenance Custodians being dropped from the program. As part of the agreement between TWU #234 and the Authority, all 50 TWU members (including the 7 trainees) would be recalled to work before the CETA program was put into operation last Summer.

The recall of the 7 laid off trainees re-activated the MTS program. As manpower shortages (the hiring freeze notwithstanding) begin really to hurt, new employees will be placed in the MTS.

What were the accomplishments one can attribute to the MTS program? Overall, the "special hiring" program is considered by Management to be very successful. Very few trainees were dropped from the MTS. Although it did reduce labor costs, there were some additional costs; i.e., for support services such as extra supervision and training, and administration of the program itself.

*Approximately 14 persons in the above data were female.

In addition, several "problems" were ameliorated by the MTS program. First, the TWU #234 agreement had narrowed the structure of wages in the Authority; that is, narrowed the occupational differentials. Thus, the agreement to pay MTS trainees below the then mandated minimum rates for new hires provided management with a wider as well as lower wage structure.

Second, employment standards were lowered, and this facilitated the hiring of more minorities into the organization.⁷

Finally, the practice of automatic promotion of employees based on seniority without merit considerations was broken. New hires' promotions reversed the general requirement in the labor contract by emphasizing merit rather than seniority.

The final section of this chapter deals with an attempt to improve labor productivity through labor-management cooperation.

F. Productivity Improvement

SEPTA within recent years has negotiated two agreements with its union in an attempt to foster labor-management cooperation to improve labor productivity. In one case, in Article 1, Section 9 of the Red Arrow Division contract with the United Transportation Union, SEPTA got agreement "in principle" to improve the productivity of the operators. The second effort involves TWU #234.

In a Memorandum of Agreement dated March 22, 1975, the parties in item #19 entitled "Productivity" agreed as follows:

19. Productivity

WHEREAS, the safe, efficient and economical operation of SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY is a major concern of the public, the Authority employees of the Authority and the Union; and

WHEREAS, the parties recognize that the public, whose support and patronage is essential, is entitled to reliable and efficiently operated and maintained fleets of passenger vehicles, rights of way, plant and equipment; and

⁷This accomplishment has particular meaning for a concern voiced in an internal memo dated July 17, 1974. The MTS was seen as making a contribution to the problem of lower productivity among new hires in maintenance. The reasons cited for the lower output were the discontinuance of employment testing, the presence of outside agencies such as the "Human Relations Commission, EEOC, etc." and the employment of a "New Breed" of employee, with lesser education and skills employment background.

WHEREAS, the parties wish to establish Joint Special Committees equally representative of the Transit Authority and the Union to seek ways and means to achieve the most efficient and economical utilization of work forces and facilities in the Authority's departments:

It is agreed:

- A. The parties are determined to and will cooperate in working towards achieving as promptly as possible ~~the most efficient~~ and economical utilization of work forces and facilities in each of the Authority's Departments as described in Article 3, Section 302 of the Labor Agreement. To that end they establish Joint Special Committees in each of the aforementioned departments.

The Joint Special Committees will review production practices and procedures affecting the utilization of employees, adequacy of materials, tools, facilities, work space available to employees, work loads and productivity of employees, and other practices, procedures or circumstances which affect the safe, economical and efficient operation of the Authority's transportation services.

- B. The Authority and the Union will cooperate in the prompt effectuation of the recommendations of each of the Joint committees. The Assistant General Manager for Operations and the President of Local 234 shall serve ex officio as members of the Committees.

It was hoped that the procedure outlined would allow the foreman, the section officer (the first-line Union representative), and the employees to focus on the question, "How can we improve job performance?" The strategy was to focus first on the job, then on the department, and finally on the division.

The Rolling Stock and Shops Department is the only area where item #19 has been implemented so far. A report written by three managers from that department will be used extensively in the following discussion on the application of labor-management cooperation in RS&S.⁸

The authors set down 3 prerequisites to success in the implementation and the productivity improvement program that grew out of their experience:

⁸ Joseph O. Wagner, John R. Nielson, and Bernard J. Krant, Productivity in Urban Transportation, February, 1977. The article also appeared in a recent issue of American Public Transit Association publication "Mass Transit."

1. Appropriate environment-labor contract and department policy.
2. Department capability to manage, plan, engineer, monitor, and acquire necessary funds.
3. Productivity planning efforts by key people within and outside the department.

RS&S summarized their efforts to achieve improved productivity in the phrase "smarter and harder!" The first major step in the Department was to develop systems engineering production control and performance analysis techniques to effectuate the opportunities opened up under item #19.

As part of this general effort, formal classroom training was established for mechanics and electricians as well as management training for supervisors. Completion of training and development courses was established as a requirement for promotion. A departmental performance appraisal system was also established to measure contributions against job requirements. Supervisory salary adjustments were made dependent on merit or performance. Supervisors who produced got promoted. A general atmosphere of competition for all sections and personnel in the Department was introduced. Employees "who demonstrated inability to perform are demoted."

Departmental management claimed, "By 1975 then, productivity had been established as a strong, positive policy in which the Rolling Stock and Shops Department was a leader in the Authority."

Several specific programs were instituted in the Departmental "Productivity Improvement Program" (PIP). The first major effort was in the 69th Street Electrical Motor Shop (repairs and overhaul.) Results reported included productivity up 50%, decrease in manpower used, and cost savings accruing from new remanufacturing capacity.

A second major effort was the creation of a Harness Shop to fabricate wiring harnesses. The result was that production tripled with fewer employees.

The report further asserted, "Numerous other productivity projects are in various stages of completion."⁹ There followed a number of examples that illustrated the manner in which a systematic approach in a cooperative environment could improve operations and lower costs. One example given to illustrate the results of such efforts, indicated that "...by September, 1976, overtime was reduced and stabilized at 2.7% of straight time hours. This resulted in a saving of \$425,000 in 1976 without decreasing production."

Some Union officials in TWU #234 were surprisingly uninformed about the application of item #19 in the Authority. The Union officials did mention that armature winding work was being sub-let while Union employees were available and able to do the work. This upset the men involved. In addition, during the recent heavy snows, motors which had been sub-let for work

⁹ There are 1300 employees in RS&S. 1150 are hourly employees; of those, 120 are directly involved with productivity improvement projects.

burned out. It is hard to explain the general lack of direct involvement or concern of Union leadership with regard to the Productivity Improvement Program, except at the Shop level.

RS&S Management's approach to bring about productivity improvement changes was stated simply: "As long as management communicates honestly, there is no problem." According to Management, there have been no labor surpluses because of the P.I.P.; work done by SEPTA employees has actually expanded. It should be noted, however, that productivity by hourly employees has resulted in no direct wage increases. (It is worth stating again that the Union believes that motor work is being sub-let to outside vendors.)

The Union, at least on a philosophical level, states a willingness to co-operate with Management to improve productivity that helps the Authority and Union members. According to Union officials, cooperation, which has not yet been established, depends on Management's sincerity. Management cannot merely pay "lip service" to cooperation. Communication cannot be used by Management simply to inform the Union "the way it is going to be." Management to date has not been willing to "accept suggestions from the Union." The Union's unique approach to "cooperation" is summed up by a top Union official: "I mean to go along with any change we want to make."

It is apparent from the Management and Union comments above that their perceptions and inter-actions merit re-appraisal at the very least. The future development and success of PIP depends, according to those most directly involved, on greater support from top SEPTA management and more effective cooperation between labor and management.

G. Productivity of Operating Personnel

Operating personnel, consisting mostly of bus, trolley and train drivers and conductors, represent a major portion of every transit agency's manpower. With the increasing financial difficulties of the transit industry and with the continuous trend of increasing share of labor costs out of total operating costs, it has become extremely important to maximize productivity of the operating personnel. In most transit authorities of this country, including SEPTA, productivity of operating personnel has, however, been decreased in recent decades for several reasons. Many productivity-increasing measures which some European countries have gradually introduced and are utilizing extensively, are unknown here. When they become known through improved exchange of transit information, transit operators exhibit considerable reluctance to use them. It is useful to review briefly the major events which have affected the productivity of transit operating personnel in the last couple of decades, focusing on the example of SEPTA.

A number of different indicators can be used for measuring productivity of operating personnel, but the most direct ones are seat-miles (or space-miles, if standees are included) produced per day by an operating employee. This figure is obtained if the total seat-miles offered by a transit system per day are divided by the number of operating personnel. Another useful indicator is passenger-miles traveled on the system during one day, divided by the number of operating personnel. These two indicators (seat-miles and passengers-miles per unit of time per operating employee) are proportional to each other for any given efficiency of scheduling of equipment on lines;

i.e., for any adopted ratio between capacity offered and number of passengers carried.

In the mid-1930's, the majority of transit services in most cities was performed by streetcars operated by a single operator. As the extensive changes from streetcars to buses were introduced, productivity of drivers decreased because of the lower capacity of buses as compared to capacity of streetcars.

In addition to vehicle capacity, operating speed of transit strongly affects personnel productivity. In some cases the change from streetcars to buses resulted in increased speed of buses, and that increase partly compensated for the decreased productivity due to smaller vehicle capacity. However, in many cases streetcar lines operating on private rights-of-way were substituted by buses in mixed traffic, resulting in reduced operating speeds, compounding the negative effect of smaller vehicles on productivity. Steadily increasing street congestion through subsequent years further reduced operating speeds of surface transit; productivity of its operating personnel decreased proportionally.

Several European countries have introduced during the last two decades a number of major innovations in vehicle design and operations and achieved outstanding results in increased personnel productivity. The most important innovations include new vehicle types and designs, operational procedures and traffic control measures.

Introduction of articulated vehicles, started cautiously during the mid-1950s in West Germany, was so successful that it rapidly spread into a number of other countries (the Netherlands, Switzerland, Austria, Belgium, Italy and many others). Articulated buses have an approximately 50% higher capacity than standard buses; articulated light rail vehicles have 50-120% higher capacity than the conventional 4-axle vehicles.

For many years this progress was virtually unknown in the United States. However, in recent years several cities have ordered articulated buses (Los Angeles, Seattle) and light rail vehicles (Boston, Cleveland, San Francisco) for operation on their heavily traveled lines.

Another set of improvements has been in the operating speed of vehicles. First, persistent work on providing private rights-of-way, particularly for light rail lines, has resulted in very substantial increases of speeds and reliabilities on light rail systems. Second, large (double-channel) doors and wide aisles in vehicles allow fast boarding and alighting and easy movement of passengers inside vehicles, reducing delays at stops. While the old PCC trolley cars have such wide doors, this is not the case with the standard buses, by far the most used transit vehicles in our cities. All transit buses in the United States have narrow doors and in many cases (including SEPTA's rolling stock) narrow aisles (2+2 seating) which cause major delays at passenger stops, as well as low passenger comfort. Finally, a third major element used extensively in European cities has been numerous traffic engineering measures giving priority of movement to transit vehicles over other traffic. Only a few such measures have been introduced in our cities in recent years.

Practically none of these innovations for improved service and increased personal productivity has been utilized by SEPTA up to the present. All the present buses are of standard size, with narrow doors and narrow aisles which, when used on lines which have standing passengers (which is the case on many of SEPTA's lines), have both low personnel productivity as well as low level of service for passengers. Such vehicle designs are inappropriate for a large city such as Philadelphia which requires high operating speed and high quality service.

The only fact which contributed somewhat to speeding up of service transit operations in recent years was the introduction of exact fares (although at the inconvenience of passengers). With respect to favoring transit vehicles over other traffic, Philadelphia is also lagging: the traffic engineering measures which could have a very significant bearing on personal productivity as well as on the quality of service for passengers, and which can be introduced on a number of streets and intersections in Philadelphia, have been limited to very few locations with minimal impact up to now. Most of these traffic engineering measures, however, cannot be introduced by SEPTA alone. A strong initiative by SEPTA is needed, but close cooperation with and full support from the Streets Department, Police and several other agencies, must exist to achieve these improvements.

There is, however, one measure fully under SEPTA's control which could significantly accelerate transit services, but has not been exploited to date. SEPTA still follows on most surface routes the practice abandoned in most cities several decades ago, to provide bus and trolley stops at every intersection. While this practice is convenient for passengers in suburban areas where most of the stops are passed by because of low passenger density, it results in a very significant decrease in transit operating speeds in inner city. Longer distances between stops (a minimum of 700 ft. is recommended) would bring major improvements. The inconvenience of passengers in terms of slightly longer walking distances would be quite negligible when compared with the highly significant increases in speed, which would in turn benefit passengers and, in addition, result in increased productivity of operating personnel and decreases of all operating costs (fuel, maintenance, etc.). Thus, a major increase in attractiveness of service and reduction of operating costs potentially exists in this measure and there is little reason, except resistance to change, that an obsolete practice is being followed.

Operation of SEPTA's rapid transit lines also allows for major improvements in productivity of operating personnel. The present operation is with a driver and conductor on each train. The only duty the conductor has is to supervise the boarding/alighting of passengers and open and close the doors. It is claimed that his presence increases safety of passengers in the train. Although this would be a highly desirable by-product of the presence of the "second man" of the crew, this is really not the case. The conductor is closed in a cabin in the middle car of each train and in most cases has no contact with passengers even in the car in which he is sitting.

Most contemporary rapid transit systems operate with one-man crews: Lindenwold Line, BART, Washington METRO, Munich, Hamburg and many others. SEPTA should carefully analyze potential improvements and choose one of two options. Either retain two-men crews, but allow the second man to be in contact with passengers and thus utilize him for increased safety (this may require some changes in car design); or introduce a different supervision of doors and eliminate the second man. If the latter system is adopted, SEPTA could operate a double number of shorter trains during the off-peak hours with the same operating costs, including personnel and energy, with which it now operates long trains. In other words, that innovation could practically result in doubling of service frequency on its lines during all-off peak hours without increase in operating costs. It is not necessary to emphasize how significant this improvement could be for attraction of passengers and thereby increase of revenues.

Elimination of the second man from the train requires introduction of an alternative supervision of passenger boarding/alighting. This can be achieved in several different ways either by driver or by station personnel via closed circuit TV. On the Lindenwold Line the driver supervises doors through a mirror. He is sitting on the left-hand side of the car, and all stations have center platforms. In Hamburg agents in fare-collection booths supervise train doors for both tracks via a closed-circuit TV monitor and signal departure to the driver. A number of other solutions are used in different cities and a careful study should be undertaken to determine which one of them would be most appropriate for SEPTA's RAPID TRANSIT LINES. If the selected solution has any bearing on car design, this should be implemented immediately for the purchase of the new rolling stock for the Broad Street Subway.

A major potential for increasing operating personnel productivity exists also on the commuter railroads in Philadelphia. The present operation with crews of up to seven men during the peak hours and three-men crews on single cars in off-peak hours is an anachronism and the major cause of extremely high operating costs of this system.

Recent purchases of new rolling stock have not done enough to improve personnel efficiency. Larger cars do provide a lower personnel/car capacity ratio; but larger cars have been designed with the same narrow doors as the old ones, so that door/car-capacity ratio has been greatly reduced, and boarding/alighting times increased. As a consequence, substitution of 60-year old rolling stock with poor dynamic performance by new stock with vastly better acceleration and speed has not resulted in any change in scheduled speeds: all the time saved in faster running (with higher energy consumption) is lost in longer boarding/alighting times at stations. Potential improvements in both attractiveness of service for passengers and personnel productivity have not materialized.

An additional paradox is that despite this excessive employment of labor, the fare collection system is such that deception is quite easy, causing significant losses of revenue.

While these operating practices are partly influenced by various obsolete labor laws and regulations, these are not their only cause. Improved communications among the crew members, a different fare collection system, and several other changes can be introduced with very significant decreases in operating costs and increases in revenues on these lines. While the operation of commuter railroads has been under jurisdiction of two railroads until recently, the present total financial responsibility of SEPTA for these services, as well as the decrease of financial assistance from the federal resources which will occur in the coming years, makes it imperative that careful attention be given to the potential significant increases in operating personnel productivity on the commuter railroads.

In conclusion, SEPTA, as well as most transit agencies in the United States, neglected to undertake improvements in operating personnel productivity for many years. Only recently, with UMTA's assistance, innovations resulting in increased productivity have become available. SEPTA should carefully consider utilization of these innovations since many of them are highly appropriate for applications in Philadelphia. Major innovations include the following:

- Purchase of higher capacity vehicles (articulated light rail vehicles and buses);
- Utilizing vehicle design with wide aisles and double-channel doors;
- Reduction of frequency of surface transit stops;
- Introduction of transit priority regulations: reserved lanes, actuated signals, protection of stop locations, etc., throughout the city;
- Acquiring private rights-of-way for trolleys, even for short distances where major realignments are not possible;
- Plan for and implement transition from 2- to 1-man crews on rapid transit lines;
- Introduction of modern methods of fare collection on commuter rail lines;
- Planning and implementation of operation with reduced train crews.

While some of these actions are complex and require considerable preparations, some others can be implemented on a very short term basis. All of them would result in significant improvements of personnel productivity, and, eventually, better service for the riders. An effective organizational development (OD) program recommended in Chapter 7 should provide the type of atmosphere receptive to planned change so vital at SEPTA in spite of financial constraints.

Chapter 5 Job Satisfaction and Organizational Climate for HRD at SEPTA

A. Rationale for Survey

No one would argue that learning takes place best in an atmosphere which encourages innovation, creativeness, risk-taking and a tolerance for error. Organizational climate research occupies a popular position in current organizational and industrial psychology. Conceptual and operational definitions, measurement techniques and derived findings, however, are often varied and highly contradictory. There have been two major attempts to review the organizational climate literature in the past two decades. Both Forehand and Gilmer (1964) and James and Jones (1974) attempted to give order and direction to the diverse organizational climate literature.¹⁰

A perceptual measurement-individual attribute approach was adopted for this study. Following the work of Schneider and Snyder (1975), "organizational climate is conceptualized as a characteristic of organizations which is reflected in the perceptions and descriptions employees make of the policies, practices and conditions which exist in the work environment.

We also recognize that the research literature suggests that job satisfaction and organizational climate variables often overlap. For example, Schneider and Snyder (1975) investigated the relationships among two measures of job satisfaction, one measure of organizational climate and seven production and turnover indexes of organizational effectiveness in 50 life insurance agencies (N=522). They concluded that a) climate and satisfaction measures are correlated for people in some positions of the agencies but not for others; b) people agree more on the climate of their agency than they do on their satisfaction; c) neither satisfaction nor climate are strongly correlated with production data; and d) satisfaction but not climate is correlated with turnover data.

Schneider and Snyder also pointed out that just as students of job satisfaction literature now realize the distinction between persons who can be satisfied in general with his or her job and dissatisfied with certain facets of the same job, organizations may be characterized by many different kinds of climates.

Since it felt that perceived climate is essential to the HRD effort, we wanted to learn how different levels of SEPTA personnel felt about their jobs and work situation. This data is important and basic to the strategic planning as well as implementation of the HRD effort. Such findings have implications not only for the content of HRD, but when and where in the SEPTA organization strategic interventions are needed.

¹⁰James and Jones conclude that previous organizational climate research, definitions, and measurement approaches could be classified into three categories; namely, a multiple measurement-organizational attribute approach, a perceptual measurement-organizational attribute approach, and a perceptual measurement-individual attribute approach. (James and Jones, 1974)

B. The Survey

In discussion with the Management Group, it was decided to develop a questionnaire covering JOB SATISFACTION and ORGANIZATIONAL CLIMATE which would be mailed to a 10% randomly selected sample within each of the five SEPTA personnel groups listed in Table 6. A second mailing was undertaken with relatively larger percentages in the clerical, facilities, and RS&S groups in order to insure a statistically meaningful sample for every group in the study. As promised in the cover letter, we are not interested in individual replies, and the respondent was not asked to sign the questionnaire. This makes an in-depth follow-up of non-respondents impossible. Therefore, a follow-up letter was sent to the total sample, thanking those who had returned the questionnaire and requesting those who had not to do so.

The return rate of 38% is satisfactory for a questionnaire that deals with some sensitive issues following a prolonged strike in the Spring of 1977 and the unstable funding base of the SEPTA system. Factors influencing who does or does not respond will influence our findings unavoidably. If people with strong negative opinions are more likely to fill out the form than people who are satisfied, our findings will be more negative than the average employee. Nonetheless, our findings are representative of over a third of the work force, not necessarily the most unhappy third. Even if held by a minority of workers, strong trends have been found that merit attention.

The questionnaire developed for the survey contains 92 items divided in 18 clusters. Forty-two of the items making up the Index of Organizational Reactions (IOR) comprise nine clusters. The IOR developed by Frank J. Smith has been used to measure job satisfaction and organizational climate in large private corporations that have multi-level work forces (Smith, 1976) and has been favorably validated against other measures of job satisfaction and organizational climate (Dunhan, Smith and Blackburn, 1977). The HRC clusters were developed to cover areas of particular interest to SEPTA and its HRD program. (See Appendix F for Questionnaire.)

The items corresponding to each cluster, and the cluster descriptions, appear in Table 7. Clusters are further grouped into CLIMATE, or JOB CLIMATE, and IOR, measuring employee satisfaction. The HRC cluster measures degree of interaction with other departments, and is of less interest for this analysis.

Items are scored and grouped into eighteen clusters, each cluster measuring a different component of job climate or satisfaction. First, the four or five possible responses for each item are grouped into simply "positive" or "negative" valences, as in Table 8. A positive response is favorable, a negative unfavorable for all items. Some may prefer to retain all the information to single out more extreme opinions. We have followed the approach statistically validated in the literature. The main difficulty with using gradations of response is that some individuals will check off the more extreme responses more readily than others, but the direction of response is more reliable.

TABLE 6

RETURNS ON SEPTA JOB SATISFACTION
ORGANIZATION CLIMATE QUESTIONNAIRES

	Total Number Sampled	Returns N	Returns %
Group I - Managerial	100	54	54%
Group II - Clerical	100	44	44%
Group III - Facilities	105	31	26%
Group IV - RS&S	156	42	27%
Group V - Transportation	<u>371</u>	<u>151</u>	<u>40%</u>
Totals	<u>832</u>	<u>322</u>	<u>38%</u>

TABLE 7

ITEM NUMBERS FOR EACH CLUSTER

<u>CLIMATE</u>	<u>DESCRIPTION</u>	<u>ITEMS</u>
1	warmth	28,45,55,82
2	responsibility	11,18,31,49,60,85,91
3	standards	6,27,43,53,58,72
4	risk	8,23,67
5	reward	13,34,38,63,70
6	structure	3,16,25,33,61,68,74,81
7	support	9,35,39,50
8	identity	52,77,80
9	conflict	15,26,40,64
<u>IOR</u>	<u>DESCRIPTION</u>	<u>ITEMS</u>
1	co-worker	4,29,32,48,76
2	financial rewards	5,19,30,44A,44B,36
3	career	10,22,42,75,78
4	amount of work	14,36,57,65
5	physical surroundings	1,12,24,37,71,83
6	kind of work	2,66,69,84,88,89
7	supervision	7,41,46,54,73,87
8	company identification	17,51,56,62,90
HRC	human resources center	21,47,59,79

not included: 20,92

All cluster scores range from -2 (very negative) to +2 (very positive). Generally, an individual must respond with the same valence on every item in a cluster in order to score a +2 or -2, and must respond the same on every item save one to score a +1 or -1. Thus, the cluster scores focus on strong opinion (Table 9).

A good rule of thumb is that mean scores of .5 or greater (either sign) are of practical interest. An average score of .5 for a certain group may be thought of as half the people holding a positive opinion, half neutral; or, it might be one fourth of the group holding a very strong opinion. Most groups, of course, will have a whole range of scores.

C. Findings

The over-all results of the survey are summarized in Table 10. For each cluster, the percentage of people with each score is given. For example, 18.6% of the respondents feel the atmosphere is very cool at SEPTA (CLIMATE 1 cluster), but 17.7% feel it is a very friendly place to work. Since each percentage point corresponds to approximately three people, there were 56 and 53 people, respectively, in these categories. On CLIMATE 5, we see that 41.3% of all persons felt very negatively about rewards at SEPTA for good work; this is in spite of the fact that most find financial rewards satisfactory (IOR 2). The overall tone of the responses is negative; nearly all of the mean scores are negative, many emphatically so. In some cases there may be little one can do: many people are unhappy about the amount of work required (IOR 4) or physical surroundings (IOR 5). Perhaps more serious is that the majority do not identify with the company ($37.0 + 23.0 = 60.0\%$ on CLIMATE 8, and $41.6 + 19.6 = 61.2\%$ on IOR 8).

This is the single most important display in the analysis, and merits careful attention. The mean score provides an overall value for each cluster, but the percentages give a more detailed picture.

As in all analyses, there are two kinds of significance: practical and statistical. A dash indicates a probability greater than .05, insufficient evidence to establish a definite trend in people's feeling. Practical significance, on the other hand, depends upon the reader's interest. Even though CLIMATE 2 has a statistically significant mean score, a mean of -.08 may be too small to worry about. Or, some may be concerned about the 34.1% with a negative response on CLIMATE 1, even though the overall mean is not statistically significant. Different parts of the display will be of greater interest to different people.

The second part of the analysis compares responses across type of work and number of years of service with SEPTA. First, analysis of variance techniques are used to determine when statistically significant differences exist across work or years of service categories.

TABLE 8

EXPLANATION OF ITEM SCORING

The categories of response for each item were judged to have a positive or negative valence. For example, Item 1 below was scored:

1. The physical working conditions make working here:

- | | |
|------------------------------------|---|
| 1. Very unpleasant | - |
| 2. Unpleasant | - |
| 3. Neither pleasant nor unpleasant | - |
| 4. Pleasant | + |
| 5. Very pleasant | + |

In the statistical analysis:

All negative (-) responses are scored	-1
All positive (+) responses are scored	+1
Non-responses are scored	0

TABLE 9

EXPLANATION OF CLUSTER SCORING

All items in the questionnaire are grouped into eighteen clusters corresponding to different dimensions of organizational climate or of job satisfaction. A person's score on a particular cluster depends upon the total of his or her valences for the items in the cluster. All clusters are standardized to a range of -2 to 2.

For example, item #1 above is one of six items in the Physical Surroundings Cluster (the other items are 12, 24, 37, 71, and 83). The scoring for this cluster is as follows:

Number of negative responses	positive responses	Physical Surroundings Cluster Scores	Interpretation
6	0	-2	very negative
5	1	-1	negative
4	2	0	no strong opinion
3	3	0	
2	4	0	
1	5	1	positive
0	6	2	very positive

There are a total of six responses for every score, corresponding to the six items. The scoring has been chosen to focus on definite opinions.

If half the respondents have a definite opinion, the mean cluster score will be .5 or greater (positive or negative). This is a good rule of thumb for considering if a cluster score is practically significant.

TABLE 10

PERCENTAGE OF RESPONDENTS WITH EACH CLUSTER SCORE

CLUSTER	DESCRIPTION	very negative -2	negative -1	neutral 0	positive 1	very positive 2	mean score	P
CLIMATE 1	warmth	18.6%	15.5%	24.2%	23.9%	17.7%	.07	-
CLIMATE 2	responsibility	1.9%	14.3%	83.2%	0.6%	0.0%	-.17	<.001
CLIMATE 3	standards	2.8%	13.0%	74.8%	8.4%	0.9%	-.08	.012
CLIMATE 4	risk	14.6%	43.2%	0.9%	32.6%	8.7%	-.22	.002
CLIMATE 5	reward	41.3%	26.1%	28.6%	3.1%	0.9%	-1.04	<.001
CLIMATE 6	structure	30.1%	17.7%	37.6%	4.7%	9.9%	-.53	<.001
CLIMATE 7	support	15.5%	49.4%	25.5%	6.8%	2.8%	-.68	<.001
CLIMATE 8	identity	37.0%	23.0%	0.6%	22.7%	16.8%	-.40	<.001
CLIMATE 9	conflict	10.9%	33.5%	42.9%	10.6%	2.2%	-.40	<.001
IOR 1	co-worker	15.5%	28.0%	42.9%	10.2%	3.4%	-.42	<.001
IOR 2	financial rewards	15.5%	18.3%	42.2%	11.5%	12.4%	-.13	-
IOR 3	career	15.5%	29.8%	34.2%	11.8%	8.7%	-.32	<.001
IOR 4	amount of work	45.3%	20.5%	22.7%	7.8%	3.7%	-.96	<.001
IOR 5	physical surroundings	40.1%	21.7%	28.9%	5.6%	3.7%	-.89	<.001
IOR 6	kind of work	20.5%	17.4%	37.0%	16.5%	8.7%	-.25	<.001
IOR 7	supervision	33.9%	17.7%	29.2%	11.2%	8.1%	-.58	<.001
IOR 8	company identification	41.6%	19.6%	24.8%	11.8%	2.2%	-.87	<.001
HRC	human resources center	11.8%	14.0%	24.2%	27.3%	22.7%	.35	<.001

All clusters have scores for all 322 respondents. P gives the probability that the observed mean is zero except for random fluctuation.

The significant differences are then presented in more detail. Table 11 gives the distribution of years of service for each category of work. For example, 14.9% of the "managers" have been with SEPTA less than five years, and 29.9% of all respondents have been with SEPTA less than five years. It is interesting that there is a large group of workers (26%) in the 30 - 39 year category. For the analysis of variance, only 4 categories of years of service were used: 0 - 4 years, 5 - 9 years, 10 - 29 years, and 30+ years. These categories were chosen partly for sample size consideration, partly to allow a difference in the 30 - 39 year group to show itself. The analysis looks first for a linear trend, then for more complicated patterns with years of service.

Significance levels for comparing the groups appear in Table 12. A dash indicates no significant difference, otherwise the smaller the number, the more statistically significant the differences. From the "years served" column, we see that seniority usually does not have much effect on opinions. On CLIMATE 4, the mean response increases by about .14 with each service category, from -.49 for those with 0 - 4 years of service to -.06 for those with 30 or more years. Clearly, an individual with 30 years seniority feels secure in his or her job! On CLIMATE 6, persons with less than 10 years of service feel more critical about job structures (-.75) than more experienced persons (-.38). It is also not surprising to find from IOR 6 that people who have been with SEPTA a long time like the kind of work they do better than new employees, since those who dislike their work may tend to find other employment. The score increased by about .19 per service category from -.55 for 0 - 4 years to .02 for 30+ years. The column "interaction" in Table 12 tests whether the effect of years of service is different at different locations. In the two significant cases, no clear pattern was found, and so they are not considered further. Most of the differences appear among the personnel groups, regardless of years of service. The nine significant clusters are considered in detail below.

Table 13 gives the average CLIMATE cluster scores for each worker category. Differences not statistically significant are presented for completeness. Table 14 gives the corresponding breakdown by worker group for the IOR clusters. In most cases, a range of values is found, rather than one strikingly different group. Using the Newman-Keuls procedure, however, we find that the manager/professional category is significantly different from the other categories for clusters IOR 5 and IOR 7. It is not surprising that this group of people feels more positive about their physical surroundings, and about employee supervision at SEPTA!

Patterns emerge also in the range of values. The managerial group is the most positive in 7 of the 9 clusters with significant differences (cluster HRC excluded), and it is always one of the two most positive groups. Group IV (RS&S) is consistently less satisfied than other groups, falling into one of the two lowest groups in 7 out of 9 clusters. The other groups are more evenly distributed, falling often in the middle.

TABLE 11

PERCENTAGE OF RESPONDENTS IN EACH WORKER GROUP
YEARS OF SERVICE

years of service	manager/ professional	clerical	facilities maint.	RS&S	transportation	row percent
0 - 4 years	14.9%	39.5%	27.6%	32.5%	31.5%	29.9%
5 - 9 years	34.0%	14.0%	17.2%	20.0%	12.8%	17.5%
10 - 19 years	10.6%	16.3%	20.7%	2.5%	10.7%	11.4%
20 - 29 years	12.8%	9.3%	3.4%	5.0%	11.4%	9.7%
30 - 39 years	21.3%	18.6%	24.1%	32.5%	28.2%	26.0%
40 or more years	6.4%	2.3%	6.8%	7.5%	5.4%	5.5%
column percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
number of respondents	47	43	29	40	149	308

14 people did not give years of service or did not fill in worker category

TABLE 12

SIGNIFICANCE LEVELS FOR YEARS OF SERVICE AND WORKER GROUP

Cluster	Description	Years served	Group	Interaction
CLIMATE 1	warmth	-	-	-
CLIMATE 2	responsibility	-	-	-
CLIMATE 3	standards	-	-	<.001
CLIMATE 4	risk	.026	.046	.003
CLIMATE 5	reward	-	.017	-
CLIMATE 6	structure	.017	.028	-
CLIMATE 7	support	-	-	-
CLIMATE 8	identity	-	-	-
CLIMATE 9	conflict	-	.044	-
IOR 1	coworkers	-	.003	-
IOR 2	financial rewards	-	.034	-
IOR 3	career	-	-	-
IOR 4	amount of work	-	-	-
IOR 5	physical surroundings	-	.017	-
IOR 6	kind of work	.002	.021	-
IOR 7	supervision	-	<.001	-
IOR 8	company identification	-	-	-
HRC	work with other departments	-	.045	-

For each cluster, the significance levels provide a test for differences among respondents according to number of years served or worker group. Significance levels over 0.05 indicate no difference among groups, and are indicated by a dash (-) only. The 'interaction' column tests whether the effect of years of service is different at different locations.

For example, on cluster CLIMATE 6, employees who have served longer with SEPTA have a different opinion than newer employees. Controlling for this, employees' opinion also varies according to worker group.

TABLE 13

Average Scores on CLIMATE Scales for Five SEPTA Personnel Groups

PERSONNEL GROUP	INTER- PERSONAL CLIMATE	RESPONSI- BILITY	STAND- ARDS	RISK	REWARD	STRUCTURE	SUPPORT	IDENTITY	CONFLICT
I: Managerial and Professional	.00	-.22	.00	-.09	-.81	-.48	-.54	-.44	-.07
II: Clerical	+.05	-.25	-.14	-.36	-1.32	-.89	-.77	-.34	-.39
III: Facilities Maintenance	+.13	-.13	-.19	-.42	-1.23	-.68	-.65	-.52	-.48
IV: RS&S	-.02	-.02	-.24	+.24	-1.24	-.88	-.76	-.69	-.33
V: Transportation	+.11	-.19	-.03	-.32	-.94	-.32	-.69	-.31	-.53
All groups combined	.07	-.17	-.08	-.22	-1.04	-.53	-.68	-.41	-.40
Significance of differences between groups	-	-	-	.046	.017	.028	-	-	.044

TABLE 14

Average Scores on IOR Scales for Five SEPTA Personnel Groups

PERSONNEL GROUP	COWORKERS	FINANCIAL REWARDS	CAREER	AMOUNT OF WORK	PHYSICAL SURROUNDINGS	KIND OF WORK	SUPER- VISION	COMPANY IDENTI- FICATION
I: Managerial and Professional	+0.02	+0.06	-0.19	-0.69	-0.48	+0.06	+0.04	-0.74
II: Clerical	-0.27	-0.09	-0.52	-1.18	-0.89	+0.00	-0.41	-0.81
III: Facilities Maintenance	-0.61	-0.39	-0.32	-1.03	-0.84	-0.26	-0.81	-0.87
IV: RS&S	-0.64	-0.55	-0.33	-1.29	-1.21	-0.52	-0.95	-1.02
V: Transportation	-.052	-0.04	-0.30	-0.89	-0.95	-0.34	-0.70	-0.88
All groups combined	-0.42	-0.13	-0.32	-0.96	-0.89	-0.25	-0.58	-0.87
Significance of differences between groups	.003	.034	-	-	.017	.021	<.001	-

Examination of these displays (concentrating on the IOR or CLIMATE clusters with significant differences) provides group by group comparisons.

The manager/professional group is consistently more positive than the other groups, particularly for risk and conflict on the CLIMATE clusters, and for co-workers, physical surroundings and supervision on the IOR clusters. Almost every positive cluster score is in this group.

The clerical group have a mixed response. Their scores are low on structure and physical surroundings; very low on reward (for extra effort). Their score on supervision, however, as well as on co-workers, financial rewards, and kind of work, is relatively high compared with other non-management groups.

The facilities maintenance group falls most often in the middle. The overall conclusions hold for this group, except that on cluster HRC, they naturally have the highest level of interaction with other departments.

RS&S workers are the least satisfied group overall. While they feel the best of all groups at being allowed to take risks, RS&S personnel do not feel rewarded for extra work. They are especially low on financial rewards, physical surroundings, kind of work, and supervision.

Transportation personnel tend to be more positive than workers in other groups. They are the most positive group about structure, and are second only to the managers in reward for extra work and financial rewards. They are most negative about conflict.

The pattern of responses for worker groups suggests that improvements may be easier to attain in the transportation and clerical groups, and harder in the RS&S group. A program to improve employee satisfaction should consider ways to reward an employee who does extra work, support for the employee, and supervision. Perhaps partly because of dissatisfaction in other areas, company identification is quite low. Although there is strong feeling that employees would prefer less work and better working conditions, these problems may be less tractable.

D. Qualitative Expressions of Morale

While answers to the survey questionnaire yield a good overview about employees' attitudes, important additional information about morale of SEPTA's personnel has been obtained from the comments found on 44% of questionnaire sheets, as well as from a number of personal interviews which the study team members conducted with individuals and groups of SEPTA's employees. The interviewed persons were from several different levels. A very strong similarity has been noticed between the written comments and the comments that were expressed orally during the interviews. An overwhelming majority of comments indicates that there is an extremely serious problem of low employee morale at SEPTA.

As already mentioned, SEPTA's personnel is characterized by a large portion of employees who have been with the organization for a very long period of time: 26% of the surveyed employees have been with SEPTA between 30 and 39 years, 5.5% 40 or more years. An additional characteristic of employees is that some of them have employment with SEPTA as a family tradition: they are the second or even the third generation of people working for the same organization. Another related characteristic is that a number of employees are more than "just working" for the organization: they are extremely interested in their work, they enjoy functioning as part of the transportation system, and they have a great potential enthusiasm for its successful operation. In a vast majority of cases, however, these employees feel that the system is not performing well and, therefore, they feel frustrated and disappointed. The interviews showed that some of the most dedicated employees showed very deep dissatisfaction and concern.

The most typical opinions expressed by employees have been selected after a careful screening out of the opinions which are personal in character or those not shared by many employees. Important points of concern and grievances, each one expressed by several different persons and obtained independently from each other, are grouped here into five major categories.

1. Little responsibility, inadequate recognition for good work, poor system for promotions

Complaints in this category include loose control of work quality, best expressed by a comment on a survey answer: "The most common attitude at SEPTA is lack of concern. If things are accomplished, O.K., if not, that's O.K. too." Lack of motivation is quoted as a direct result of this attitude. Another comment on the same problem is, "In the 5 years (of my work at SEPTA) I believe only 3 times my foreman has come up and told the men that they had done a good job."

Many opinions are critical of the promotional system cited in Chapter 4. Several go as far as to say, "At SEPTA it is not important for promotion what you know, but whom you know."

2. Inadequate vehicle maintenance

There is no systematic preventive maintenance, parts are difficult to get, considerable waste exists in shops.

A number of problems in this area are reported. Many parts are purchased on the minimum cost basis without adequate consideration of their maintainability. Practice of "cutting corners" and cannibalizing some vehicles to repair others is often applied. "Flexible" buses are of very poor quality, require extensive maintenance. Several foremen estimated that 75% availability of the bus fleet is typical, but if strict standards for vehicle quality were applied, this figure would be only 50-55%. Although this is only an estimate, observations of condition of buses in service appear to confirm it.

Market-Frankford rapid transit line rolling stock was supposed to have general overhauls every 7 years. At this time, after 17 years of operation, the first overhauls are being started and it is expected that it will take, at present rate, 7 years before the entire stock is overhauled. Thus, some cars will have operated 24 instead of 7 years before their first overhaul.

These are only a few examples citing vehicle maintenance problems. Trolley fleet experiences mentioned even more serious problems, and it is frequently stated that the number of vehicles scheduled cannot be provided by the shops. Due to considerable popularity of trolley services, SEPTA's riders are often aggravated by the low performance of the potentially highly reliable rail lines. Trackless trolleys experience similar problems, but delivery of new vehicles in the near future should result in a major improvement of this portion of SEPTA's rolling stock.

3. The problems in maintenance personnel - drivers - riding public relationships

The unsatisfactory condition of vehicles also aggravates the operating personnel. When a driver takes his vehicle and notices major defects on it, but has to drive it, he is both angry with the maintenance personnel and frustrated that he has to present such a vehicle to the riding public. His negative attitude toward the public causes similar feelings and critical attitude of the public toward SEPTA.

Employees feel, in turn, that the public image of SEPTA is very unsatisfactory. Instead of being a popular organization which enjoys public support, SEPTA is being extensively criticized for reasons which employees often cannot deny. This situation results in very negative attitudes of the employees toward their agency as well as toward the passengers. The animosity which then builds up between passengers and operating employees intensifies these feelings and mutual dissatisfaction.

A typical reflection of the problem of low morale of operating personnel is that one finds very commonly that drivers of SEPTA's vehicles refer to their agency as "they" rather than "we". This shows that they feel a considerable degree of alienation.

4. Continuous reduction and deterioration of service

The most dedicated employees at SEPTA are anxious to provide frequent, reliable, on-time service in clean, well-maintained vehicles. They are frustrated by the trend of service reduction and deterioration. A number of statements describing this trend are probably best represented by the statement: "This company is like a sinking ship."

5. Criticism of the management and board

The most common criticism in all employees' answers refers to SEPTA's management. Many employees understand very well that the reduction and deterioration of services are in large part consequences of the financial problems which SEPTA continuously faces. They point out, however, that "not all of SEPTA's problems can be solved by adequate ~~financing~~." Many are criticizing what they describe as "politics" and appointment of people without transit background to the management and board. A number of answers go as far as to state flatly that "SEPTA needs a complete change in its leadership." Another typical statement is, "An organization such as SEPTA cannot be successful. The board of directors are political appointees who know nothing about Surface Public Transportation. How can these people direct and oversee the performance of management? How successful would any organization be if so constituted?"

The employees express a particularly sharp criticism of their supervisors and management when these adopt the attitude that "things are bad, we know that, but nothing can be done." Lack of initiative, resignation to poor conditions and acceptance of not only deficiencies caused by the financial constraints, but also those which are clearly assignable to inefficient practices, inadequate supervision, failure to utilize changes for improvements, and rejections of many ideas for improvements (the system for employees to report suggested improvements, reported to have been very popular, has recently been abandoned) are strong factors in the dissatisfaction and very low morale of SEPTA's employees.

There is no doubt that the financial constraints under which SEPTA presently operates are extremely damaging, and that without the solution of the financial problems on a permanent basis, SEPTA cannot utilize its full potential and offer the high quality of service which its employees, as well as the public, would like to have. It is also obvious, however, from these written and oral reports of a number of employees that many practices in SEPTA which are not directly related to financial problems exist and that they significantly contribute to the unsatisfactory service, inefficiency of operations and deep dissatisfaction on the part of many employees. Full utilization of the potential abilities and performance of SEPTA's employees, which are rather impressive, can be achieved only if these problems in management and operations are carefully analyzed and a major effort for their improvements is undertaken.

E. Implications for HRD

The implications for HRD of the findings from the Job Satisfaction-Organizational Climate Survey are discussed in terms of SEPTA as a total organization and distinctions among the personnel groups.

a) Implications for SEPTA as a Total System

An overriding feature is the lack of identification with SEPTA as a corporate entity. Students of organizational behavior view this as a measure of morale. There have been various attempts to define group morale more precisely than by such general terms as esprit de corps or unity of the group. "High morale, usually characterized by an optimistic 'we're going to win' attitude, or at least 'what we are doing, we've got to do,' can sometimes be clear to even an untrained observer (Kelly, 1974)."

HRD efforts need to be initiated which will give SEPTA work units the feeling that they are held together by internal cohesiveness, rather than external pressures. Members of work units need to feel a shared consensus of goals and values, more positive attitudes concerning their objectives and a style of leadership which allows and structures the flow of interaction appropriate to their mission. The sense of identification with SEPTA will come from a sense of identification with one's immediate work group. It will not come from superficial image-making efforts.

The above, coupled with the fact that overall responses are negative on nearly all clusters related to reward (for extra work), amount of work, physical surroundings and supervision*, argues for restructuring the supervisor's job. Gellerman (1976) points out in similar circumstances the development of supervisory training which changes both substance and style. The essence of such efforts is to stress, "...one must be able to get along with people; but one must also recognize what they have to do to contribute to productivity, make it clear to them (direction), continually ascertain that they are performing correctly (control), and do it all in a manner that preserves their dignity. This adds up to a very demanding role, and perhaps that is why the ranks of first-level supervisors have seldom been filled with consistently outstanding performers. By the same token, that is why the recruitment, training, and motivation of effective supervisors is the single best route to sustain high productivity (Gellerman, 1976)."

This new approach to supervisory recruitment and training would require the allocation of funds and resources by the Board and top management. Such a commitment would best derive from the Board's fuller appreciation of the potential of human resource development to higher productivity and better service (Hill, 1973).

b) Group Differences

As conventional wisdom would suggest, SEPTA personnel felt secure in their jobs as seniority increased. When one considers this, however, in light of the turn-over of young managers in SEPTA discussed in Chapter 3, the need for management development programs and career counseling with this group is evident. This also has implications not only from training, but also increased manpower forecasting and critical organizational linkages between personnel and human resource development cited in Chapter 7.

*Exceptions on the last two is the personnel category of manager/professional.

In the strategic planning of HRD at SEPTA, the survey data suggest that the combination of need and relative positive attitude suggests initial emphasis be given to the Clerical and Transportation personnel categories. From the point of view of greatest need, the specific training requirements of the RS&S group should be examined and documented.

Training programs meeting those documented organizational goals should be developed, implemented and documented.

Chapter 6 Education and Training at SEPTA

A. The Current Status of HRD at SEPTA

David Rosen, in a proposal for a "SEPTA Human Resource Complex" (1976), aptly describes the current status of human resource development at SEPTA. "Development of SEPTA's human resources is currently accomplished by brief, modest instruction efforts that are geared to the acquisition of specific skills required for entry level job performance. Often these efforts are only superficially effective because of time constraints, limited instructor qualification, lack of skillfully prepared programs, inadequate instructional aids, constrained instructional environments and budget limitations. Consequently, human resource development is abbreviated and shallow and does not encourage a significant depth of understanding and appreciation of job performance requirements. Only recently has a modest effort been made to expand the perimeters of human resource development through course and facilities expansion -- an effort to which SEPTA personnel have reacted most favorably, even to the extent of voluntarily applying for such development. But the surface has only been scratched! Much more needs to be done if SEPTA is to prepare for the diverse challenges of the future and if the following tangible benefits, among others, are to be appreciably realized:

- . Improved Safety
- . Improved Employee Relations
- . Reduced Personnel Turnover
- . Improved Assigned Job Performance
- . Personnel Upgrading
- . Improved Job Performance Versatility
- . Reduced Customer Complaints
- . Improved Communications
- . In-Depth Appreciation of the Transportation Business

Current facilities for human resource development are limited, and, generally, inadequate. The largest of these, located at the Fern Rock Depot, has been modestly renovated, but still is inadequate to accomplish SEPTA's diverse skills and professional development requirements. Moreover, it is located within a 50-year depot that is, environmentally, better suited to RS&S operations than it is to human resource development. Other facilities at the Luzerne Depot, 69th Street Terminal and Wyoming Avenue consist of a room or two where only abbreviated essentials of human resource development can be accomplished. To effectively implement all current development requirements and to prepare for future ones requires an expanded and uniquely designed complex to accommodate the dynamics of urban transportation personnel development. Renovation of obsolete and deteriorating existing structures to accomplish this objective, if possible, would be costly and still would not yield the results required for optimum effectiveness of human resource development (SEPTA, 1976)."

In addition, we found some areas of skill training take place in the Randolph Skills Center, Philadelphia Board of Education, on a contract basis.

As stated in Chapter 3, for historical reasons Employee Relations and Industrial Relations Departments at SEPTA are under separate leadership.

Similarly, training and development responsibilities are also divided and under different managers. The Operational Training and Safety Department is under the Transportation Division and Maintenance Training under the Employee Relations Department. Within the past year the safety function has been placed under the jurisdiction of the Training Manager of the Employee Relations Department.

This arrangement obviously suggests need for organizational redesign to coordinate better the training and development activities which are discussed in the next Chapter of this report.

B. Outline of the Training and Development Curriculum

An overview of the two divisions of Training and Development currently at SEPTA is cited below.

TABLE 15

Overview of Training in Operational Training and Safety Division

New Operator Training

No. Participants:	Currently from 6-12 per week
Duration:	14 days, streetcar and trackless trolleys. 19 days, bus.
Followup:	2-day followup instruction which occurs 30 days after completion of training
Ongoing followup:	Check with instructors once every 2 weeks. For the first year to year and a half, 20 operators are assigned to an instructor. Periodic checks are made on each driver. Amount of followup varies according to instructor work load. There are currently 47 instructors. On this particular day (2-27-78), 6 were doing followup.
Program:	Conducted by instructors, who in turn have been trained in methods of instruction.
Compensation:	Initial training at minimum wage. Followup at graduated operator rate. When reinstruction occurs as part of disciplinary procedures, compensation reverts to initial training rate.
Evaluation of Program:	1) At end of training students fill out evaluation form including what they feel is needed in the program and comments on the instructor. 2) Number of people who drop or resign from a program is checked. 3) Check is made on how well operators perform.

Direct Costs: 6 months ago, \$4200 per bus operator. Includes 2-day and personalized followup.

Goal: 1 day of followup training to take place 6 months after completion of training. Ideal: 1 day every 2 years.

Followup for Accident Prone People-PEP Program (Personal Evaluation Performances)

No.: 18 last year. On trial basis for 1 year

Duration: 1 day. One -on-one with instructor.

Program: Instructor works with operator on his/her individual problems.
Checkrides by instructors for all operators who have accidents.

Vehicle Training (for RS&S, Facilities)

No.: 1 at a time. Depends on timing of promotions; e.g. when-ever a car cleaner is upgraded to mechanic.

Duration: 1 or 2 days. 1 day is totally inadequate according to Boscia. But sometimes he cannot get the instructors or the released time for the 2 days.

Program: Training in operating streetcars, buses, and trolleys.

Vehicle Training (for Management, new hires)

No.: 26 people last year.

Duration: PCC course- 3 days
Bus and trolley-1-2 days

Program: Training in operating streetcars, buses and trolleys.

High Speed Training

No.: Depends on hiring practices.

Duration: Varies according to location.
Broad Street - 18 days
Ridge & Market- 13 days

Program: Operation of vehicles. Conducted by instructors (there are 3 high speed instructors and a chief).

Compensation: Minimum wage.

Direct Costs: Broad Street-approximately \$4500 per operator.

Refresher training: Started this year. 140 people so far. 1 day course; compensation at full rate.

Followup: Ongoing check riders by instructors for all trainmen.

Training of Towermen, Stationmen, Yardmen

No.: Depends on turnover.

Duration: Market yardmen-24 days
Ridge & Broad yardmen- 18 days

Cashier Training

No.: Depends on turnover, transfers.
20-50 people per year; 3-4 at a time.

Duration: 5-day program.

Program: Conducted by instructors. (There are 2 cashier instructors.) Includes classroom instruction and working in the cashier booth.

Direct Costs: No information available.

Instructor Training

No.: Approximately 60 have been trained.

Duration: 30 days.

Program: Leadership training (3 days)
Operator training & defensive driving (3 days)
Methods of instruction (2 days)
Skills training - trolley (3 days)
 - buses (1 week)
SOP and reporting procedures (1 day)
Briefings by dept. managers and orientation on rapid transit.

Management Training

No.: Mandatory for supervisors and instructors

Duration: 3 days.

Program: Managerial Skills: Leadership, Communications, etc.

Followup: Periodically send articles on management.

This program precedes skills training for supervisors. This program used to complement Lyons' management course (no longer being offered).

Other Training

There is a weekly reporting system which shows the number of people trained in each program, the number of hours of training, and the location. Instructors are used in a variety of ways and their schedules shifted according to need. Boscia reports that in 1976, 4,193 people received some type of training.

Refresher operator courses of from 1-3 days duration are offered to persons returning to the job after a period of more than 6 months.

The Safety Bus is used to provide information. Operators and other personnel visit the bus of their own volition. The bus stays in one location for about 30 days at a time and costs about \$1000 to maintain for that period. 2-5 instructors are used on the bus.

Outside seminars have been severely curtailed. There have been almost none in the last year. SEPTA people are no longer sent to the Northeastern University Transportation Program.

Red Arrow conducts all of its own training with operators as instructors.¹¹

Table 16 entitled "Overview of Employee Safety and Development Training" provides information about SEPTA's educational programs. Mr. John Lyons has established the Priority System Below:

PRIORITY SYSTEM

- A Course critical/ short term (0-6 mos.)
- B Necessary/short term (0-12 mos.)
- C Critical/long term (12-36 mos)
- D Necessary long term (12-36 mos)
- E Desirable for sustained high level or organizational performance

¹¹ Added evidence that SEPTA has not yet become a coordinated regional system.

TABLE 16
Overview of Employee Safety and Development Training
of Courses/

Course Title	Instructors Co./ Outside	Average Graduate Per/Year	Attendance Voluntary Mandatory (off Hours Co. time	Average Length in Hours	Cost per student/ Optimum Size Class	Priority	Budget Restriction
Air (Basic) Conditioning	x	2/30	x	40	\$25/15	B	No
Auto Mechanic	x	2/20	x	36	\$25/10	B	Yes
Carpentry	x	2/20	x	36	\$25/10	B	Yes
Chassis (Bus	x	3/18		24	Fixed/6	A	No
Diesel Eng. Maintenance	x	5/30		32	Fixed/6	A	No
Diesel Engine Overhaul	x	5/40		40	\$50/8	A	Yes
Effective Reading (VTR	x		x	25	\$50/10	E	Yes
Electricity 1 & 11	x	4/40	x	40/40	\$25/15	A	No
Electronics 1 & 11	x	4/24	x	50/60	\$80/6	C	No
Gen. Ed. Dev (H. Sch. Equiv)	x	1/15	x	200	*State Support	E	No
Masonry	x	2/20	x	36	\$25/10	D	Yes
Mgmt. Dev. 1 & 11	x	2/24	x	40/40	Fixed/16		No
Pcc Troubl. & Repair	x	2/16		80+	Fixed/8	A	No
Plumbing	x	2/20	x	36	\$25/10	D	Yes
Rep. Writing (VTR)	x	2/24	x	30	\$40/12	E	Yes
Welding	x	2/14	x	36	\$50/12	C	Yes
EDP Sys. (VTR)	x	6/48		25	\$50/8	C	Yes
Blueprint Drawing 1 & 11	x	4/32	x	25/40	\$50/8	D	No
UND. Consid. Machine Shop	x	2/16	x	140+	\$50/8	C	No
Transmission		VTR-Vidio Tapes			Fixed-F.T. SEPTA Employee		

Table 17

TRAINING PROGRAMS					
	LENGTH OF PROGRAM	NUMBER ATTENDED	BALANCE	PROJECTED BY 1974	NUMBER OF PROGRAMS COMPLETED
<u>PROGRAMS COMPLETED TO DATE</u>					
Management Trainee Program	2 years	11	0	11	1
Apprenticeship Training — RAD	15 months	24	4	continuous	
Signals Training Program	6 months	21	4	4	3
Middle Management Training Program	14 weeks	32	60	60	1
Lower Management Training Program	13 weeks	60	340	128	2
Automatic Fare Collection Equipment	3 months	46	0	0	1
Fire Equipment Course	10 weeks	6	0	0	2
Facilities Trainees	6 weeks	15	new employees	new employees	continuous
Upper Management Training Program	5 weeks	32	0	32	1
New So. Broad Electrical Facilities	1 month	30	0	0	1
Porters	1 month	85	0	0	1
Trackless Trolley Electrical Course	2 weeks	15	15	15	1
Streetcar Electrical Course	1 week	28	34	20	3
Instructor Training	5 days	10	10	4	2
GM Diesel Engine Overhaul	3 days	6	15	15	1
Air Conditioning Course (Vehicles)	3 days	20	20	20	2
6 M Transmission Rebuilding Course	2 days	24	24	24	3
Seminars in Specialty (In-House)	1 day	22	400	40	1
Seminars in Specialty (Outside)	1-5 days	18	250	25	6
Safety Indoctrination of new Employees	1 hour	40	new employees	continuous	continuous
<u>PROGRAMS IN PROGRESS OR PLANNED</u>					
Apprenticeship Training — CTD	4 years	0	12	12	0
Emergency Procedures for Passenger Evacuation	1 year (2 days per employee)	0	all employees	all employees	0
Heating Plant Maintainers	8 months	0	7	7	0
Air Conditioning Course (Buildings)	8 months	0	10	10	0
Structural Iron Workers/Welders	6 months	0	11	11	0
Night School	4 months	0	150	150	0
Track Foremen	3 months	0	5	5	0
Inspectors	1 month	0	13	13	0
Track Welders	1 month	0	20	20	0
Thermit Welders	3 weeks	0	6	6	0
Computer Utilization for Managers	2-10 days	0	13	13	0
General Information Seminar	1 day	0	70	70	0
Self Development Program	1 day	0	500	500	0

Mr. Lyons stated, "...the essentials of each program including the priority as related to our day-to-day operations and budget restrictions, are dictated by our fluid cash position...Some courses are designated as voluntary and mandatory since we usually allow any employee to attend any class as long as those job-related candidates are served first. Those designated as either voluntary or mandatory are done so on the basis that the program is usually in that mode. We attempt to place as few restrictions as possible on the learning process."¹²

The courses in plumbing, carpentry, masonry, auto mechanics and welding take place at the Randolph Skills Center-Philadelphia Board of Education. The total full-time instructional staff for this wide array of programs is two personnel. Most of the other instructors work full-time for SEPTA and offer instruction in addition to their regular responsibilities. Both inside and outside instructors in the evening program are compensated \$30 for 2 ½ hours of duty.

The participants in the day skill classes are usually homogeneous by pay grade, but in most evening sessions there is a greater mix of personnel levels.

SEPTA provides a Tuition Refund program which was suspended during our study but has started again and has 35 personnel participating. In addition, special seminars are developed and implemented. As funds permit, a Video Tape Library is being established and a machine shop is being planned. The location of various programs is often changed from one facility to another depending upon demand.

On the other hand, compare the range of training programs provided at SEPTA included in an HRD Report of 1974 (Table 17) with the topical offerings in the previously cited tables. The current HRD program has been reduced because of limited resources in time, budget, and personnel. As a result departments with complex manpower-technological problems, such as Facilities and RS&S, conduct numerous autonomous training courses. These training courses are run by first-line supervisory or foreman on-the-job. There is little opportunity to develop a course of study formally. As a result, effective teaching styles and approaches are not generalized to other courses or to future groups of trainees.

In a department like Facilities there is a wide range of different types of personnel with specific training needs. For example, leadership in the Facilities Department makes a strong case for the need of training in such areas as Heavy Material Handling for Crane Operators, Track Foreman Training and Track Inspection Techniques as illustrative of many HRD areas in their division. In all of these areas, whereas the need for training is great, the number of SEPTA personnel available for such a course at a given time is small.

¹² Memorandum from John Lyons, subject, "Education Programs" to Howard Mitchell, Diana Robertson, dated August 23, 1977.

If it were systematically determined that other systems in the region had similar training needs, it would be more economical and efficient to provide periodically such technical training as part of a regionally supported HRD effort. Also, until an HRD policy is established at SEPTA and supported, many training needs will be satisfied by independent departmental activities. Obviously, it is difficult to document and more difficult to evaluate all such departmental HRD efforts in a system as complex as SEPTA.

C. Critical Review of Training and Development

Using a model developed by Delbert W. Fisher (1974) shown in Figure 3, a Training Observation Form (Appendix B) was designed to observe systematically and document the Learner-Instructor-Group-Climate interface for each training session. It was also anticipated that a cost/benefit analysis would be calculated for each training program. For this purpose the Training Cost Model Work Sheet (Appendix C) was developed.

Over a period of several months, HRC team members observed segments of the majority of SEPTA's training programs. In addition to observing, and in some instances participating, in the programs, team members informally asked both instructors and trainees about training objectives and effectiveness. From these observations and queries, it became apparent that many of SEPTA's training and development programs had developed haphazardly.

As could be expected, courses offered on a voluntary basis are particularly lacking in a clear set of objectives. Many of the employees participating in such programs were doing so to satisfy personal needs or to work toward individual goals. Only coincidentally do these individual objectives match or overlap with organizational concerns. The objectives for some programs were vague and there was no systematic documentation between the individual's need for the training and SEPTA's organizational needs. Therefore, we would not be able to determine the relevance of training to performance on the job or career development in SEPTA as an organization.

Although this more systematic approach to developing the HRD effort has not been established at SEPTA, several aspects of existing training programs are to be especially commended.

First, training in the Operational Training and Safety Division has been revised within the past few years. Standardized modular units of instruction are used; the training offered thus varies less from instructor to instructor than was true in the past. Secondly, those teaching in these training programs are full-time instructors who have been schooled in methods of instruction. Many other major transit systems in the United States use operators as instructors. Those at SEPTA feel that operator-instructors are less effective and more varied in their approach to training than are regular full-time instructors. Next, operator training relies heavily upon learner participation. Most instruction involves first demonstrating to the

learners, and then having them go through the various operations. HRC members observed the one-day High Speed Operator Refresher Training which is an excellent illustration of this principle. The morning segment of the training consisted of classroom instruction and questioning of the operators as to how they would react to various possible unusual circumstances. In the afternoon these circumstances were actually simulated on the trains, allowing the operators to experience and properly respond to them under the supervision of the instructor.

Furthermore, the joint training leadership has made creative use of audio-visual techniques in designing interesting and creative training presentations. They have insightfully used less than satisfactory facilities and equipment, kept up the morale of the training operations in spite of frustrating budgetary and personnel problems.

It was distressing, also, to observe the extent to which students' attendance and motivation would fluctuate as a function of the variability of quality instruction. This was more true in the educational programs where often there is no time for lesson planning by the instructors and budgetary restrictions have not permitted the hiring of a curriculum writer or instructional assistant.

It should be pointed out that one of the training directors stated that the training serves as morale boosters for individuals within the organization. However, morale should be a goal-oriented phenomenon.

As Quinn (1977) indicates, in a high morale organization, people intensely share common performance goals. The voluntary courses do not, however, contribute to the mutuality of goals, but only enhance individual attitudes. The survey results alluded to in Chapter 6 particularly point to the problem of morale at SEPTA. Lack of identification with SEPTA and its goals can only be addressed by training programs designed to strengthen organizational, rather than individual, morale.

Because of the haphazard nature of the training programs, we turned our attention and emphasis to more basic issues - HRD policies and their implementations, organizational structure for HRD at SEPTA, and the critical linkage between the personnel and HRD functions which are discussed in the context of recommendations for improving SEPTA's HRD Program in Chapter 7.

The first step in designing a complete training and development system for SEPTA is to determine precisely what training and development needs currently exist and to project future training requirements. To this end we engaged the key management group in a "Development and Training Needs Audit" during several of the monthly meetings.

From five levels of personnel; namely, Executive or Top Management, Middle Management, First Level Foreman-Supervisory Personnel and Instructors, Clerical Workers and Maintenance (Hourly) Employees, the Management Group was asked to indicate the degree to which an

illustrative list (to which they were invited to add others) of training topics would fulfill the development or training need of the designated group. Included in Appendix D are two of the five forms distributed to the Management Group to obtain their perceptions of development and training needs for the Executive Group, Form 1 and Form 5, Maintenance (Hourly Employees).

For each personnel level, the perception of training and development needs was ranked on the basis of a weighted score reflecting degree of need and frequency with which that topic was mentioned as being needed. The degree of need-weighting was 3 for "great", 2 for "some", 1 for "little", 0 for "none". The Executive Group saw the need for Motivational Training based upon the following calculations of the weighted score: 11 saying "great" ($11 \times 3 = 33$), 3 responding "some" ($3 \times 2 = 6$), 1 "little" ($1 \times 1 = 1$), yielding a Total Weighted Score of 40 which was the highest and ranked first.¹³

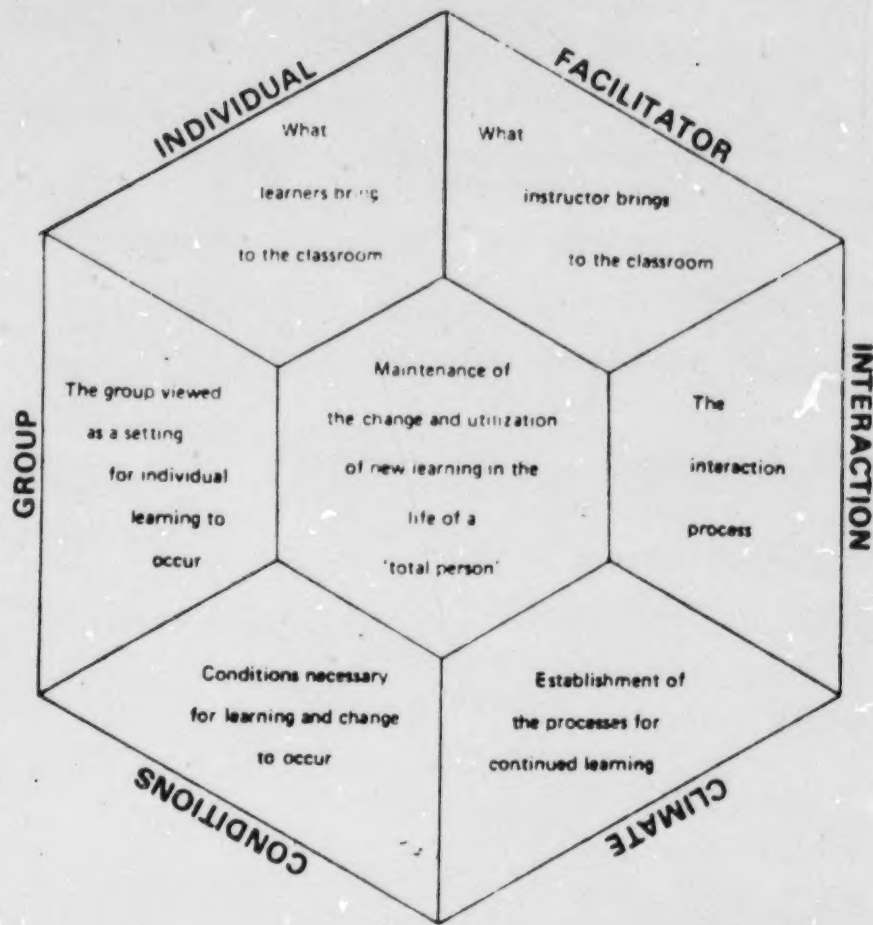
Next we empirically classified the perceived training needs into the Scheme represented in Figure 4. The Scheme focuses attention upon first thinking about training and development programs which a) will preserve current SEPTA operations, and b) will serve SEPTA's needs in the future. For example, new technology and legislative requirements upon SEPTA's future operation must be anticipated, and the implications for HRD planned for and programs implemented. For example, new laws requiring better provision for services to the physically handicapped has been anticipated at SEPTA. Members of the HRC Team were participant-observers to a very effective orientation to problems of the physically handicapped riders conducted for supervisory personnel.

Second, the Scheme in Figure 4 attempts to bring some order and balance to SEPTA's training objectives and the content of its HRD programs. Under Type A, Table 18, we found that the recommended topics for each personnel level could be empirically classified under programs: 1) Improved Technical Skills, 2) Improved Performance, Attitudes and Behavior, and 3) Improved Procedures and Processes.

In our recommendations for improving SEPTA's current HRD Program discussed in Chapter 7 of this report, we argue for a classification of training activities based upon SEPTA's organizational needs now and in the future. In addition, the training techniques, strategies, and materials need to be selected as they have been found to be effective and specific to training objectives.

¹³ This perception is significant and consistent with our discussion of the overriding lack of identification with SEPTA reflected in the survey data and how this affects motivation and the feeling that a viable system can operate in spite of environmental factors.

FIGURE 3



TRAINING PROGRAM
MODEL

From "A Teaching-Learning Theory for Results In In-Service Education",
Training and Development Journal, August 1974, pp.46, by Delbert Fisher.

FIGURE 4

CLASSIFICATION SCHEME FOR SEPTA HRD GOALS
BY PRESENT VS. FUTURE TYPE AND TRAINING
OBJECTIVES

TWO TYPES

TYPE A. PRESERVING THE SEPTA ORGANIZATION

- | | | |
|------------------------------------|---|--|
| 1. Improved
Technical
Skills | 2. Improved
Performance,
Attitudes,
and Behavior | 3. Improved
Procedures
and Processes |
|------------------------------------|---|--|

TRAINING
OBJECTIVES

TYPE B. PLANNING FOR SEPTA IN THE FUTURE

- | | | |
|---|---|---|
| 1. Introducing
New Technical
Skills | 2. Helping Employees
to Grow for New
Responsibility | 3. Planning the
Organization
to Meet New
Demands |
|---|---|---|

TABLE 18

CLASSIFICATION OF PRIORITY TRAINING NEEDS (HRD GOALS)
FOR SIX LEVELS OF SEPTA PERSONNEL BASED ON
PERCEPTIONS OF TOP MANAGEMENT GROUPS

THE EXECUTIVE GROUP

TYPE A. PRESERVING THE SEPTA ORGANIZATION

1. Improved Technical Skills

Problem Solving Using Computer
Accounting & Cost Control
Financial Analysis

2. Improved Performance, Attitudes,
and Behavior

Motivation
Leadership

3. Improved Procedures
and Processes

Communication
Public Relations
Marketing
Reward Systems
Decision-Making

TYPE B. PLANNING FOR SEPTA IN THE FUTURE

1. Introducing New Technical Skills

2. Helping Employees to Grow for
New Responsibility

3. Planning the Organi-
zation to Meet New
Demands

Strategic Planning

TABLE 18 (Cont'd)

MIDDLE MANAGEMENT

TYPE A. PRESERVING THE SEPTA ORGANIZATION

1. Improved Technical Skills

Methods Improvement & Work
Simplification
Written Communication
Cost Control

2. Improved Performance, Attitudes
and Behavior

Understanding & Motivating
Subordinates
Oral Communication
Leadership

3. Improved Procedures
and Processes

Organizational Objec-
tives, Functions &
Structure
Delegation of Responsi-
bility & Authority
Problem Solving & Decision
Making
Job Responsibility &
Authority
Performance Appraisal

TYPE B. PLANNING FOR SEPTA IN THE FUTURE

1. Introducing New Technical Skills

2. Helping Employees to Grow for
New Responsibility

Job Enrichment

3. Planning the Organization
to Meet New Demands

TABLE 18 (Cont'd)

FIRST LEVEL FOREMAN

TYPE A. PRESERVING THE SEPTA ORGANIZATION

1. Improved Technical Skills

Methods Improvement and Work
Simplification
Written Communication

2. Improved Performance, Attitudes
and Behavior

Oral Communication
Understanding & Motivating
Employees
Interviewing
Managing My Time

3. Improved Procedures
and Processes

Communication,
Principles &
Approaches
The Supervisor's Job
Preventing & Handling
Complaints & Grievances
Training New Employees
Discipline
Appraising Employee
Performance

TYPE B. PLANNING FOR SEPTA IN THE FUTURE

1. Introducing New Technical Skills

2. Helping Employees to Grow for
New Responsibility

3. Planning the Organization
to Meet New Demands

TABLE 18 (Cont'd)

CLERICAL WORKERS

TYPE A. PRESERVING THE SEPTA ORGANIZATION

1. Improved Technical Skills

Office Shortcuts & Time Savers
How to Use the Telephone Effectively

2. Improved Performance, Attitudes
and Behavior

Developing Your Potential
Better Time Management

3. Improved Procedures
and Processes

Your Role as a Member
of the Office Team

TYPE B. PLANNING FOR SEPTA IN THE FUTURE

1. Introducing New Technical Skills

2. Helping Employees to Grow for
New Responsibility

3. Planning the Organization
to Meet New Demands

TABLE 18 (Cont'd)
MAINTENANCE (HOURLY) EMPLOYEES

TYPE A. PRESERVING THE SEPTA ORGANIZATION

1. Improved Technical Skills

Work Simplification Methods

2. Improved Performance, Attitudes
and Behavior

Oral Communication

3. Improved Procedures
and Processes

Appraisal of Why Job Is
Important at SEPTA

TYPE B. PLANNING FOR SEPTA IN THE FUTURE

1. Introducing New Technical Skills

Learning New Procedures, Methods,
Mechanical Skills to Maintain
Equipment

2. Helping Employees to Grow for
New Responsibility

Preparation for Supervisor's
Job
Understanding Why Change Is
Occurring

3. Planning the Organization
to Meet New Demands

TABLE 18 (Cont'd)

OPERATORS (HOURLY) WORKERS

TYPE A. PRESERVING THE SEPTA ORGANIZATION

1. Improved Technical Skills

Skill in Driving Technique

2. Improved Performance, Attitudes
and Behavior

Relationship with Passengers
& Public
Relationship with Maintenance
Personnel
Relationship with Police¹
Orientation to Other Factors
in Operation

3. Improved Procedures
and Processes

TYPE B. PLANNING FOR SEPTA IN THE FUTURE

1. Introducing New Technical Skills

2. Helping Employees to Grow for
New Responsibility

3. Planning the Organization
to Meet New Demands

Chapter 7 Recommendations from HRD Study

The recommendations of the HRD study are discussed in three sections in this Chapter: a) recommendations for improving SEPTA's HRD system within reasonable constraints of budget, time and operations, b) suggestion of an implementation plan for "a" above and; c) the outline of a model regional mass transport HRD system.

A. Recommended Improvements in SEPTA's HRD System

In order to deal more comprehensively and systematically with the variety of findings, observations and information reported in Chapters 3 through 6, Table 19 was constructed. The first column of Table 19 displays the Major HRD Needs of the SEPTA System. The five HRD Needs are 1) need for an organizational development program, 2) the organizational redesign of the personnel function, 3) the need for management development and career counseling, 4) the study of further ways of improving productivity of labor and capital via HRD techniques, and 5) the need to design systematically the training and development systems.

1. The Need for an Organizational Development Program

The findings related to organizational climate generally, and more specifically, to a low identity and morale within SEPTA as an organization by personnel at all levels, the lack of clarity of HRD policy and its implementation, the associated limited and uncertain budgetary support for education and training, the need for significant sub-systems of SEPTA (e.g., the Board, union and management¹⁴, work units, governmental support sectors, etc.), to appreciate fully the relationship of HRD investment to increased productivity and service; all argue for the need of an organizational development (OD) program. By this we mean there is need to develop and carry out a planned, systematic process to change the values, attitudes, climate and behavior of key SEPTA leadership in order to improve the organization's commitment and effectiveness in achieving its HRD objectives. We are recommending a planned change in the SEPTA system defined in terms of reeducation starting at the top. Ideally we are recommending that SEPTA's Board and top executive staff engage in an organizational development program which would increase their appreciation of the potential payoff of investment in HRD to productivity and service.¹⁵

In successful organizational development efforts there is strong initial need for improvement at the top management levels. "From our experience, the important thing is a sense that things could be better (French and Bill, 1973)". The qualitative material reported in Chapter 5 indicates a pool of latent positive feelings among SEPTA's personnel waiting to respond to strong, competent, dynamic leadership in a well-designed and supported HRD program.

¹⁴ Note the problem of union-management cooperation reported in Chapter 4 in discussing the Productivity Improvement Program.

¹⁵ The regional transit authority in Chicago is currently conducting such an OD program for its top leadership.

TARLE 19

NEEDS, ACTIVITIES AND MODELS FOR IMPROVING HRD AT SEPTA

NEEDS	ACTIVITIES	MODELS
1. Planned Systematic Process to Change Value, Attitudes, Climate and Behavior of SEPTA in order to Improve the Organization's Effectiveness in Achieving its HRD objectives (i.e., need for OD Program)	Top management and selected union leadership and Board involvement in development of HRD philosophy and policy	1. Redesign of SEPTA Transit Institute with Board, Top management and Union Participation 2. Shell Limited Program (Hill, 1972) 3. United Air Lines (Lippitt, This & Bidwell, 1971).
2. Organizational Redesign Personnel Function	Improvement in: 1. Relationship between human resources planning, manpower forecasting and general institutional planning. 2. Organizational redesign of Personnel and IR functions. 3. Personnel management information systems to inventory skills, management development information, and training and education data.	1. Burack (1977) 2. Nurack (1977); Mass Bay Transportation Authority. 3. Kaiser Aluminum Chemical Corporation (Handy, 1970); Seamans (1973)
3. Management Development and Career Planning	Establishing and Utilizing: 1. Management development, the preparation of people for managerial positions (Whether professional, technical, administrative or line) 2. Career planning and counseling, a process of clarifying personal goals and abilities and matching them with future organizational needs and opportunities.	1. Assessments Centers AT&T Bray, 1977) Sears Roebuck, General Electric, U.S. Department of Agriculture Anderson (1973); Furguson (1966); Grusky (1966); Hall (1976); Travelers Insurance

TABLE 19
(Continued)

NEEDS	ACTIVITIES	MODELS
4. To study the ways of improving the productivity of Labor and Capital via HRD Techniques so that the system can achieve the Productivity Levels Achievable by Peer Systems	1. Calculation of current levels of Performance 2. Calculate Possible Levels of Performance based on Peer Group Performance. 3. Determine What Portion of the Difference of (b) and (a) above can be overcome by HRD Programs and outline what such Programs would entail.	1. Productivity Performance measurement (Vuchic 1976), Tomazinis (1974,1977) Fielding & Glautheir (1976)
5. To Design the Training and Development Systems in a way that they maximize Return on Investment of Personnel, Time, Space, Facilities Equipment and Materials.	A sequential flow of activities ranging from clearly specifying the goals of each program to identifying training and development needs, to collecting Job data, to training objections... to follow-up participants.	System Approaches to Training and Development (Tracey 1971); Apprentice Training Center, London Transport;

The endorsement of SEPTA's management for this HRD study demonstrates partial commitment to an OD program. An organizational development program, however, requires time because it is aimed at planned change. Other optimal conditions for OD to be successful involve the introduction of an external behavior scientist consultant (as was done in this HRD study), establishing a general HRD policy which is operationalized in an action model which has the potential of early success, the development of an open, educational philosophy about OD and HRD at SEPTA, the development of internal HRD resources, the effective management of the OD process and the need to monitor the process and measure results (French and Bill, 1973).

We are recommending that the first step in the improvement of SEPTA's HRD Program is not an endorsement of any needed additional program, but to engage top leadership in an OD process emphasizing HRD goal setting and planning. The best way is to immerse selected leadership in a workshop arrangement in which the human resource problems of SEPTA could be fully appreciated.

In the third column of Table 19, are illustrative models which, if applied in appropriate form to the SEPTA system, would satisfy the diagnosed "needs" indicated in the first column. The SEPTA HRD staff in 1977 proposed a five-day SEPTA Transit Institute to acquaint interested community leadership with the scope and nature of SEPTA's operations (Appendix E). This Transit Institute Program might be redesigned to emphasize the importance of human resource development activities in SEPTA's operation. It is also consistent with the type of orientation often developed and administered in private enterprise to immerse board and key policy makers in operations so that the commitment essential to HRD policy is established. A good example of the latter is the program reported by Hill (1972) at Shell U K Limited. For example, in the revised Institute there should be introduction and discussion of innovative technology as well as observing the HRD implications of current technology and operative procedures.

The purpose of these OD efforts would be to establish strategic HRD goals for SEPTA. These goals must be set 1) at the right time, 2) with maximum input from those who have the most specific knowledge (which would be exchanged by participation in the revised Transit Institute), and 3) with the genuine commitment of those who must achieve results. "Effective strategic goals do more than provide a basis for direction setting and performance measurement. They are essential to establishing and maintaining freedom, morale, and timely problem sensing in an enterprise (Quinn, 1978)".

The process by United Air Lines (Lippitt, This, and Bidwell, 1971) in arriving at a statement of corporate training and development policy suggests that following the revised Institute a Training Study Committee be established. The Committee composed of two Board members and three executives, and with the aid of an outside behavioral science consultant, will arrive at a Statement of SEPTA's Corporate Training

and Development Policy." This will be based upon an assessment of the best thinking in and outside SEPTA. Once this document has been formulated it will be submitted to the Board for approval and support. The United Air Lines Statement of Corporate Training and Development Policy endorsed and issued by its President in 1968 is contained in Table 20.

At the time President George E. Keck appointed the study committee to review all nonpilot, nonmanagement training done within United Air Lines, they had no overall policy, although training activities required an annual expenditure of about \$14,000,000. President Keck instructed the committee to make a comprehensive study:

"to ascertain that the company's money is being well spent, that we are using the best methods and techniques to accomplish good results, that we do not have duplication of efforts or expenditures, and that we have a need for the training being done (Lippitt, This, and Bidwell, 1971)"

We dealt in Chapters 3 and 4 in considerable length with the history of the beginning of SEPTA's training in line operations, out of labor-management agreements and/or from the expressed needs of groups of personnel. We found it was impossible to place a dollar value on most of SEPTA's training. Therefore, we feel that these steps outlined here need to be taken simultaneously. For SEPTA's top leadership to see the value of viewing human resources as human capital, an OD process needs to be instituted to 1) establish a policy statement worthy of support and 2) through such an effort to create an atmosphere in the system of growth, planned change and a will to provide better service in spite of environmental constraints.

Basic to HRD in the SEPTA system is the problem of identity and morale. We are also suggesting that via an OD effort which starts at the top and enunciates SEPTA's training and development goals, identity and élan will be created. It is necessary to forge a common bond among SEPTA's employees who have widely diverse personal values, expectations, and capacities. This means that the numerical output goals in Chapter 5 must be teamed with goals that satisfy people's more basic psychological needs;¹⁶ i.e., to provide a worthwhile public service which is recognized and respected by the community. "More thoughtful top-managers", writes Quinn (1978), "also carefully analyze whether one strategic goal or another will better attract the skilled and personal commitments they want. These people's talent and dedication then become the central strengths upon which the organization's success

¹⁶ A Wharton marketing professor recently pointed out to members of the HRC team how a marketing program of a major airline had recently failed because they failed to realize the importance of this distinction.

TABLE 20

United Air Lines Statement of
Corporate Training and Development Policy

United Air Lines is a service organization. Our value to customers and our success as a business depends on how effectively and efficiently the people of United carry out their responsibilities.

A people-centered organization like United must also be a people-developing organization. Management at every level must understand clearly that time and money spent wisely in training our personnel is an investment in the most crucial part of our system.

Each person in United is ultimately responsible for his own development to become an increasingly effective member of the United team.

Each manager and supervisor is responsible for providing the climate, conditions and directions for the job-related development of his subordinates. (This responsibility cannot be delegated, since the most consistent training occurs day by day in the work situation.)

Each training specialist or training administrator is responsible for working with managers and supervisors to improve consistently the conditions and opportunities for developing subordinates' skills, knowledge and attitudes.

United's operations must be flexible and adaptive to the increased tempo of change. This flexibility is directly dependent on our ability to train people promptly and effectively. It is therefore our policy to maintain a group of training specialists to insure that the training is well-planned, well-coordinated, well-conducted and utilizes the most appropriate methodology available.

Training is a costly investment and must be planned, budgeted and evaluated with care. The importance of this must be recognized at all levels of the company.

To insure that the training function is carried on effectively, we shall strive to develop within United Air Lines the following:

1. A corporate training policy that is understood throughout the system.
2. Managers and supervisors who understand, accept and know how to fulfill their basic responsibility to train subordinates.
3. An approach to training which begins with clearly identified needs and ends with the measurable achievement of practical training objectives.
4. A clearly understood procedure which budgets, accounts for, and reports the cost of all training.
5. Systematic methods for assessing job performance and the effectiveness of training in improving that performance.
6. An organizational climate that encourages, recognizes and rewards inter-administration and inter-departmental planning and implementation of training programs.
7. Maintenance of a professional training unit responsible for the qualifications of training personnel, technology, methodology, and media to

TABLE 20
(Continued)

keep United current with new developments in the training field.

8. Organizational mechanisms and procedures for effective inter-administration and inter-departmental planning of training programs and use of specialized training capabilities.
9. A system of recognition and rewards which attracts competent personnel to training positions and encourages them to develop their capability for a professional training career.
10. The early involvement of training personnel in planning those changes which have training implications.

Lippit, Gordon L., Leslie E. This, Robert C. Bidwell, Jr. Optimizing Human Resources: Readings in Individual and Organization Development, Addison-Wesley Publishing Company: Reading, Massachusetts, 1971, p. 189.

is built. An IBM salesman, a Bell Labs researcher, a New York Times stringer or a Steuben glassblower all enjoy a special ēlan--as do millions of others whose organizations achieve a special identity. This ēlan provides a special psychic compensation for the people involved, and symbiotically it became the organization's most price-less asset. More often than not such ēlan develops around broad conceptual goals, rather than precise mathematical targets (Quinn, 1978)"

2. Organizational Redesign of the Personnel Function

Critique of SEPTA's organizational design was not HRC's contractual responsibility. Nevertheless, critical aspects of organization structure and operations are basic to improving SEPTA's HRD effort. Data in Chapters 3, 4 and 6 point up the need for human resource planning and the broader role and total system perspective required of the personnel office in SEPTA. There are two main aspects of human resource planning: forecasting and programming. Ideally, forecasting should encompass long, intermediate and short-range projections and cover a) demand for labor, b) internal supply of labor and c) external labor supply. Our recommendations concentrate on the short-range forecast (under two years) which usually grows out of the normal budgetary processes. In other words, if SEPTA plans to increase its output (service), its overall budgets will be larger, and personnel budgets will be proportionately larger to reflect this increase.

Figure 5 shows that the personnel planner must first determine the human resource requirements of the system as a function of short-range forecasts which simultaneously take into account the existing demands for service and expansion versus contraction, as represented by the working budget.

This demand for human resources can be met only by analyzing the supply of resources.¹⁷ A significant part of the supply emerges from within the organization by means of promotion or training. Department rosters, schedules, and anticipated transfers all influence the internal aspects of the supply.

Similarly, the personnel planner must be aware of the external labor market as a source of additional employees if needed. The personnel officer requires an information system which keeps him up to date on employment/unemployment figures for particular job categories within the relevant geographic area of the regional transport authority. Moreover, equal employment opportunity regulations and an affirmative action policy require that both supply and demand analyses indicate the degree of geographic concentration/dispersion of females and minorities when determining the makeup of the labor force (Burack, Smith, 1977).

We emphasized the importance of total system orientation of the personnel officer from a human resource perspective. We are beginning to see this translated into changes in the staff role of the personnel manager in some regional transportation systems. Critical in terms

¹⁷This need was recognized in the plan to computerize the personnel information system which was never implemented.

of implementing human resource development for employees already in the system (i.e., the internal-labor supply, Fig. 5), is the linkage between the personnel and training functions. At SEPTA this linkage does not exist in organizational design or practice. We would also like to see fully discussed the wisdom of combining the total personnel function under one leadership.

A structural linkage between the personnel function (specifically, the short-range forecasting of manpower needs) and the training division is a way of controlling the training function primarily to serve the organization's needs. We found, for example, some SEPTA employees participating in skill training to insure employment as a skilled artisan in the community. Participation in the training was not viewed by these students as a road to advancement or reward for performance within SEPTA. This is a partial explanation to the findings reported in Chapter 5 showing that extra work, training, risk-taking were not related to higher performance and pay.

The criticalness of the linkage between manpower forecasting and training has been recognized at the Massachusetts Bay Transportation Authority in which Chester W. Higgins has developed "A Conceptual Model for Human Resource Development, Placement and Utilization."¹⁸ The model, so far limited to the management level, identifies manager needs of the Authority and the availability of potential managers to fill slots from internal and external resources. Moreover, selection for participation in the management training and development programs is based upon a matching of the forecast with the development of activities to put the forecast into operation. As aforementioned, this procedure dovetails organizational goals with the needs of individual participants in training activities.

We cannot emphasize too often that the above requires close cooperation between those responsible for the personnel and training functions. Some blurring of staff-line distinctions often occurs in firms which have successfully instituted such functional linkages.

More experimentation with organizational redesign is needed at SEPTA. This experimentation would focus upon how the personnel and training specialists carry out their interdependent roles in organizational arrangements such as project management, matrix management, and other more temporary task-force groups. In these arrangements, the personnel manager is a part of a team in which there is no line or operating management in the traditional sense.

3. Management Development and Career Planning

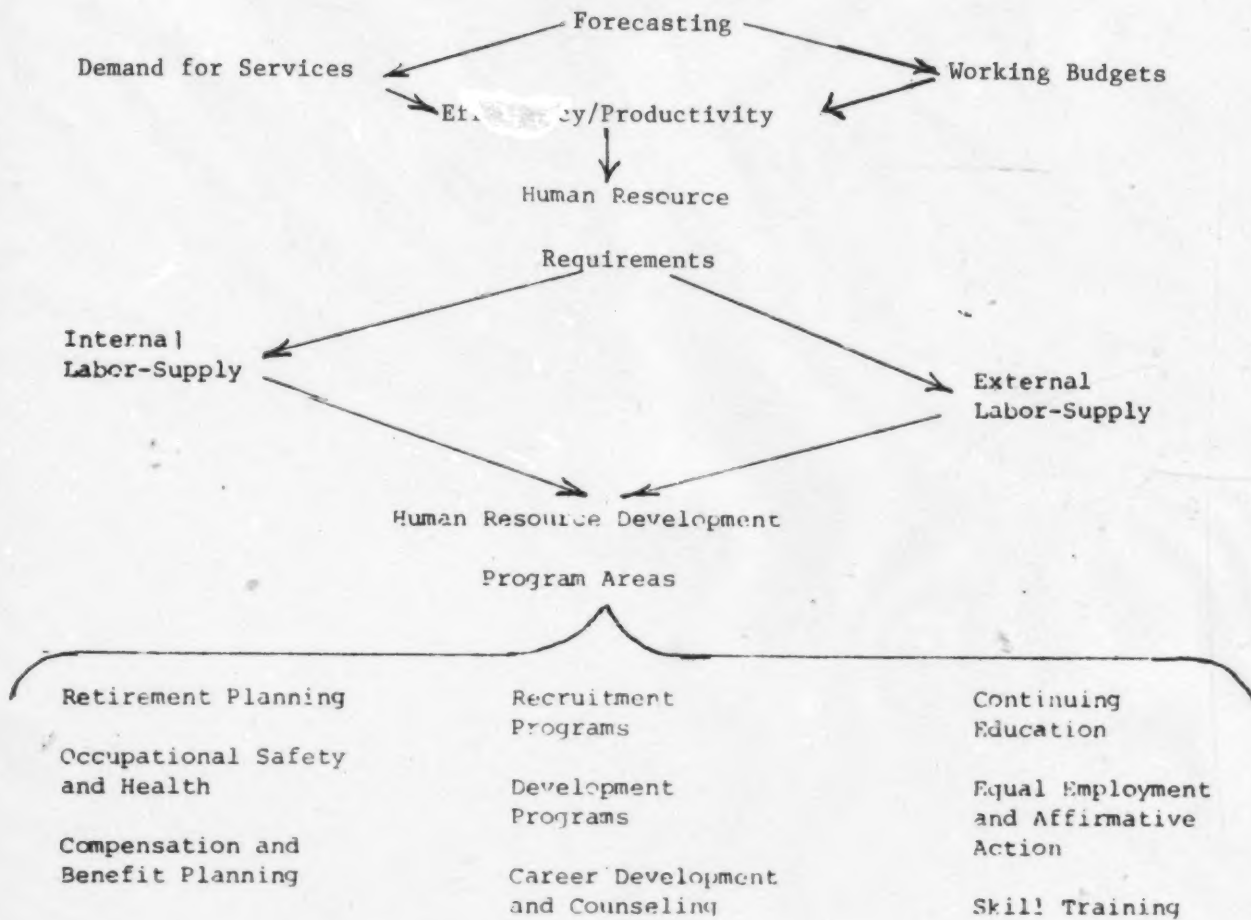
The findings from the analysis of "reasons for leaving" stated by 26 "A" level employees in Chapter 3 demonstrates dramatically the need for management development and an expanded program of career

¹⁸ Personal communication from Mr. Chester W. Higgins, Senior Personnel Administrator, Massachusetts Bay Transportation Authority, including "A Conceptual Model for Human Resource Development, Placement and Utilization," dated November 21, 1977.

FIGURE 5

Short-Range Human Resource Forecasting: Organizational

Perspective¹⁹



¹⁹ This figure is a modification of a figure developed by Elmer Burack and Robert D. Smith in Personnel Management: A Human Systems Approach (1977).

planning and counseling. As indicated in Chapter 3 a sizable portion of the younger, better educated, technically trained managers resigned from SEPTA during the time of this study.

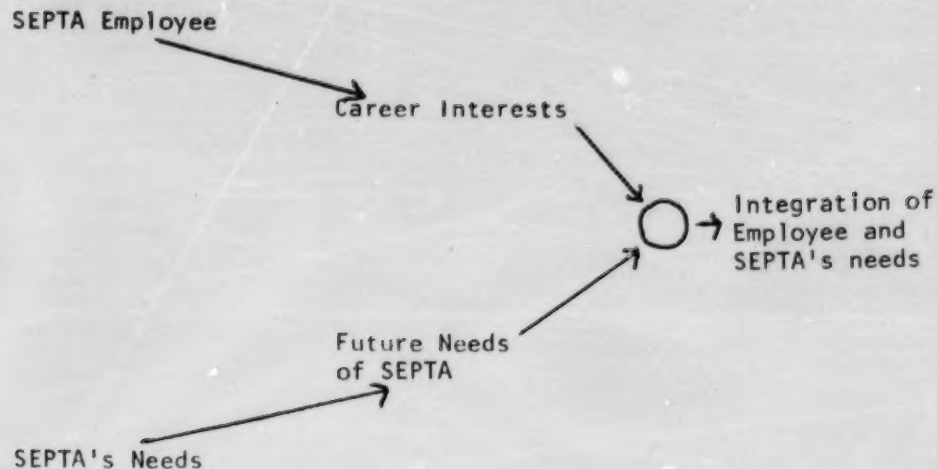
We recommend that SEPTA's leadership needs to view management development and career planning as human resource capital. Personnel-related costs have been traditionally viewed at SEPTA as current rather than as capital expenditures. Consequently, the costs of securing, hiring, training and management development (to the extent that they have been calculated or estimated at SEPTA) are charged off to costs of current operations. "Yet, the central focus of career planning and management development is the future The forward looking nature of development programs and the anticipated returns are more similar to capital than to current costs. They are current investments in professional careers (Burack, 1977)."

We argue that the future of SEPTA, as well as other urban mass transport systems is dependent upon the quality of managers it is able to recruit, hire and retain. This fact was fully recognized by SEPTA's leadership in the development of the "Management Succession Program," instituted in November, 1976, and cited in Chapter 3 of this report. However, it is our observation that the full significance of this HRD effort for morale, for increasing the long-range problem-solving capacity of SEPTA, was not fully realized. This is true of so many of the well conceived HRD activities in the SEPTA operation because they were initiated from "bottoms-up." They are inadequately or intermittently funded, and HRD personnel has been unable to obtain sufficient time and internal/external consultation for systematic planning and implementation of their programs.

This is why we first recommend that an HRD policy must be established before there can be any systematic implementation of that policy. We would argue for a sequence of activities in which 1) HRD policy is established, 2) leadership is trained so that the full significance of the policies are understood, and 3) management then explore alternative sources for the funding necessary to implement programs. Much of SEPTA's leadership is so absorbed with its continuing state of fiscal crisis that it is difficult to get them to consider HRD policy, let alone programs of value.

Furthermore, a study by John A. Bailey (1970) showed that although there was a significant change from an earlier investigation in 1962 to the time of his study in the educational level specified for top levels of management in the thirteen operating companies surveyed, educational requirements are still minimal for the complexities of the managerial tasks in mass transportation. At SEPTA the recruitment of top managerial talent is further complicated by the prolonged personnel process detailed in Chapter 3.

At present in SEPTA, use of the counseling process, like participation in many of the training programs, depends upon the interest and self-selection of the employee. Consistent with the discussion of the need for instituting a manpower forecasting system, career counseling should be based upon an integration of the employee's needs and the future of the organization as indicated on the next page.



Counseling requires a redesign of the program incorporating aspects of models cited in Table 19, and based upon a sequence of career pathing activities outlined in Figure 6. We further suggest that this career planning approach be tested and evaluated on a population of managers 25 to 35 years of age in the SEPTA system.

The scheme presented in Figure 6 incorporates SEPTA's recognition that new technology in the future requires new job skills and responsibilities. From a human capital point of view, this must be provided as importantly as the new technology. Otherwise, the new technology, like the old, will be used less productively and/or poorly maintained.

For both the satisfaction of the employees' needs and aspirations, and SEPTA's requirements organizationally, note the importance to sequence and time-phasing of HRD activities in Figure 6. This career pathing procedure pulls together the fragmented elements in SEPTA's current HRD activities and suggests a program combining education (4) and work (2) to enlarge the employee's capabilities in service to SEPTA. Individual skill (5) is developed by job, education, and training.

In summary, we are recommending that a career plan be developed for each young manager in the SEPTA system and that this procedure be evaluated over a five-year period. A tangible criterion of the value of the procedure would be the extent to which turn-over is reduced and the upward movement in SEPTA among this group, so vital to the future of the organization, would be provided.

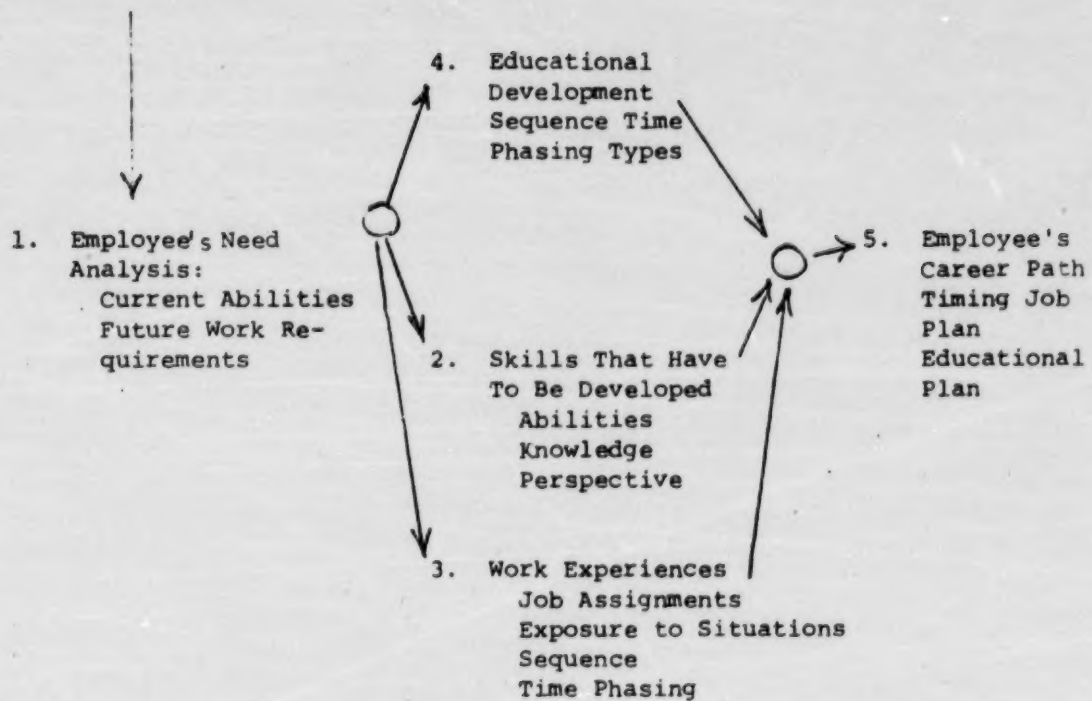
4. Improvement of Productivity of Labor and Capital

The successful implementation of the Productivity Improvement Program discussed in Chapter 3 should provide a major solution to this problem. However, this depends upon greater union-management cooperation. This is also consistent with the suggestion earlier in this chapter that Board, management and union leadership needs to be involved in the development of HRD philosophy and policy as a first step toward a more effective HRD program at SEPTA. Expertise is also required (internal or external consultation) continually to monitor SEPTA's performance

FIGURE 6

A RECOMMENDED SCHEME FOR CAREER
PLANNING AND CAREER PATHING²⁰

Identify SEPTA's
Future Tasks and
Responsibilities



²⁰ From Burach (1977)

with peer groups. This we feel is the real test of operationalizing and testing performance goals and policies.

5. Design of Training and Develop Systems

It was our observation as reported in Chapters 3 and 6 that much of SEPTA's excellent and innovative training programs not only developed from "bottoms-up" but were initiated sporadically and unsystematically. We have also reported that it is not clear to what extent given programs serve employee vs. SEPTA's organizational needs. This, we have stated, requires correction by establishing an HRD policy and changes in organizational design, a new perspective toward manpower, more adequate support for HRD, and an on-going monitoring of performance, as well as other matters recommended.

It would be unwise to recommend the addition of specific HRD programs at SEPTA until steps are taken systematically to design each HRD activity. We have also indicated how this step is dependent upon establishing an HRD policy via an OD process which should change the climate at SEPTA from low morale absorbed with SEPTA's budgetary problems, to more constructive problem-solving and identity with SEPTA.²¹

The first direct step in making SEPTA's HRD activities more effective is to formulate the objectives of each training activity (consistent with the statement of HRD policy). The main function of statements of objectives is communication. "Well-stated objectives provide a practical and objective means of determining the specific facts, principles, concepts, and skills that must be included in a training program (Tracey, 1971)." From this step, subsequent to selecting the most suitable instructional strategy, flows clear-cut instructor and trainee goals and developing criteria for evaluation. In addition, with well-stated objectives available to them, supervisors have a clear picture of the knowledge and skills that graduates of a training program bring to the job. This facilitates the development of realistic on-the-job training programs at SEPTA which then could be designed to dovetail with the formal program.

A good place to begin this effort would be in the Operational and Safety Division where, as indicated in Chapter 6 a good beginning has been made in recent years to standardize the training. Training activities in this Division are also more directly job related.

HRD personnel at SEPTA require sufficient manpower or consultative assistance to define the objectives of their training and development activities more precisely. Related to the recommended manpower forecasting and critical linkage between the personnel and training functions

²¹ One manager related in an interview with an HRC team member, "It's difficult to think creatively about these things when you have to go around with a tin cup in your hand."

at SEPTA, these programs and systems need to be primarily designed to provide employees with the knowledge and skills they need to do their jobs at SEPTA now and in the future. No enterprise can afford to operate training and development programs that are not job related. Similarly, the learning experiences provided in the SEPTA-sponsored training need to be even more directly related to the duties and tasks which job incumbents are expected to perform. This is a way to ensure an adequate return on the HRD investment. The development of the instructional system is then based on training objectives from job data, formulated in performance terms whenever possible. In fact, we were told about one supervisory training effort which had to be abandoned because when the "improved supervisors" returned to their post-training positions, they had expectations of themselves in their roles which were not fulfilled or appreciated by superiors or rewarded.

When a training or development activity is being designed and developed, the HRD designer also needs a means of determining whether the activity is appropriate and effective. We noted at SEPTA an over-emphasis upon self-assessment and the degree of "satisfaction-dissatisfaction" participants felt from engagement in a given program. If, for example, the goal of a job-related training program is to improve report-writing by personnel in which this task is essential to good performance, a baseline measure of their report-writing performance needs to be made (this might include ratings of their performance by unbiased supervisory personnel, compared with post-training performance measures).

As mentioned above, the instructional strategy appropriate to each HRD activity needs to be better developed. By instructional strategy we mean the combination of teaching, mediating devices and the system of organizing trainees and instructors to accomplish an instructional objective. For example, what should be the optimal size of the training group of subway operators brought in for follow-up safety training? Does it make any difference if the group is homogeneous in terms of age and experience at SEPTA? How much of the follow-up training should be in class and how much in the field? How much of the training involves attitudes towards safety procedures and how much is dependent upon their knowledge of safety features of the equipment? What is the relationship to changes in their behavior in the class and post-training performance on the job?

Answers to all the questions posed above about a given HRD activity will not come from a more systematic design of the training effort. If HRD is going to be taken seriously at SEPTA, those with the HRD responsibility must be given sufficient manpower and budgetary support to obtain the resources to begin to address HRD issues more systematically and comprehensively. Only in this way will we begin to realize a return on the HRD investment in terms of SEPTA's improved performance and service to the community.

B. Implementation Plan for Improved SEPTA HRD System

Implementation of the recommended actions to improve SEPTA's HRD Program depends upon a mobilization of internal and external resources. This will not and cannot take place until HRD at SEPTA is a "top-down" priority. Consistent with this point of view is the recommendation that SEPTA institute some form of laboratory training, as suggested in Table 19 to engage Board and top management and union leadership in the development of an HRD philosophy and policy. The HRC has interest and the management capability to assist SEPTA in the development and implementation of this important step of the proposed action plan. Specific areas in which HRC has expertise and interest in assisting SEPTA are the following:

- 1) To facilitate the reorganization of Human Resources function in SEPTA.
- 2) To design and implement a manpower planning system based upon improved personnel data base.
- 3) To analyze and conceptualize the internal labor market operations to improve employee mobility to increase efficiency (with a focus on upward mobility).
- 4) To develop and implement a SEPTA-wide performance appraisal system for management.
- 5) To centralize training and development function: process consultation.
- 6) To help create a new labor-management relations climate with the goal of improving attitudes of the parties toward greater productivity as a function of HRD activities.
- 7) To assist in the systematic design of training programs.
- 8) To study new employees' attitudes. Attitudes could be tracked over the first year or two of employment. Essentially, this project would involve the kinds of dimensions used in the organizational climate questionnaire, but longitudinally, rather than at any one point in time.
- 9) To conduct forecasting study of ridership.
- 10) To develop MBA field study exercises and Advance Study Project opportunities at SEPTA for Wharton students.
- 11) To develop participant observation of operators. Related to item 10, students might go through operator training and spend a period unobtrusively riding SEPTA. Such a project could provide insight into operator attitudes and training needs.

- 12) To track public attitudes toward SEPTA, particularly before and after a public relations effort, like "The Courtesy Is Catching" campaign.
- 13) To explore with Philadelphia firms their willingness to underwrite buses providing special services to their employees.
- 14) To study the effects of technological innovations or new equipment on job satisfaction.
- 15) To conduct on-going studies of SEPTA's performance with peer groups.

We realize that funding for most of these activities is not available in SEPTA's budget. HRC would share the responsibility with SEPTA of designing proposals and seeking funding from external sources. This consultative or technical assistance should follow the clear statement of an HRD policy by SEPTA's top leadership. The leadership of SEPTA must be convinced that investment in human capital is at least as important as investment in new equipment or technology. In fact, an objective of advanced managerial training for SEPTA's leadership should be to enhance the appreciation of SEPTA as a total system and the interdependence of structure, technology, tasks and people.

C. Parameters of a Model Regional Mass Transport HRD System

1. Need for a Regional HRD System

There is merit in considering the development of a regional mass transport training installation located within the geographical limits of SEPTA's operations, so that it might serve not only SEPTA's needs, but other systems within a radius of 300 miles. The establishment of such a system would entail a capital investment in a facility located adjacent to educational and scientific resources. Preliminary work done by HRD staff at SEPTA in this respect is sound and is endorsed²² by the HRC team. Moreover, personnel from systems in Wilkes Barre, Allentown, Altoona and Wilmington have begun to respond to and participate in training programs at SEPTA. Smaller mass transport systems cannot afford the investment in the development of training aids, instruction, equipment, evaluative methods, etc., that could be provided in a regional center. As we also pointed out in discussing the diverse training needs of the Facilities Department, there are infrequent training requirements for small numbers of personnel which could be satisfied in a regional system.

Moreover, if a regional center is identified by the community as an innovative center for training and research toward providing better service to the public, it will serve a public relations function externally. The public will have evidence that public mass transportation is an important part of the infrastructure which is being improved and tested. Internally, to SEPTA and the other systems,

²²We make reference to an undated proposal by SEPTA's HRD staff entitled, "Proposal to Construct and Develop a SEPTA Human Resources Center."

it would serve to improve morale. It would indicate that mass transport is important to the infrastructure of the community, and that problems facing the system are capable of solution. The latter has been one of the "pay-offs" from the government's investment in regional educational laboratories to beleaguered local public school leadership across the country.

2. The Conceptual Orientation and Organization of the Regional Center

The Center would need to be developed with a dual objective: 1) to service the HRD requirements of SEPTA and 2) to serve HRD needs of mass transport systems in the region designated. These dual objectives have implications for the regional center's organizational structure. A Technical Advisory Group might be established, comprised of the principal HRD-managers serviced by the Center. The needs of the local system would be fed in the Center via the Technical Advisory Group, and new innovations in HRD practices diffused back into the region served by the same Group. As suggested in the improvement of SEPTA's current HRD activities, training and development programs would be buttressed by applied research. Therefore, the Center would also see as part of its mission the need to conduct research, develop conferences and workshops on HRD issues.

We would suggest that, in order to exercise control for the Center to meet the service needs of its regional customers, federal funding to conduct given HRD activities be given to the local authorities "to buy" HRD services from the regional center. This is in addition to providing the funding necessary to plan the activity which would go directly to the Center.

3. The Capital Investment

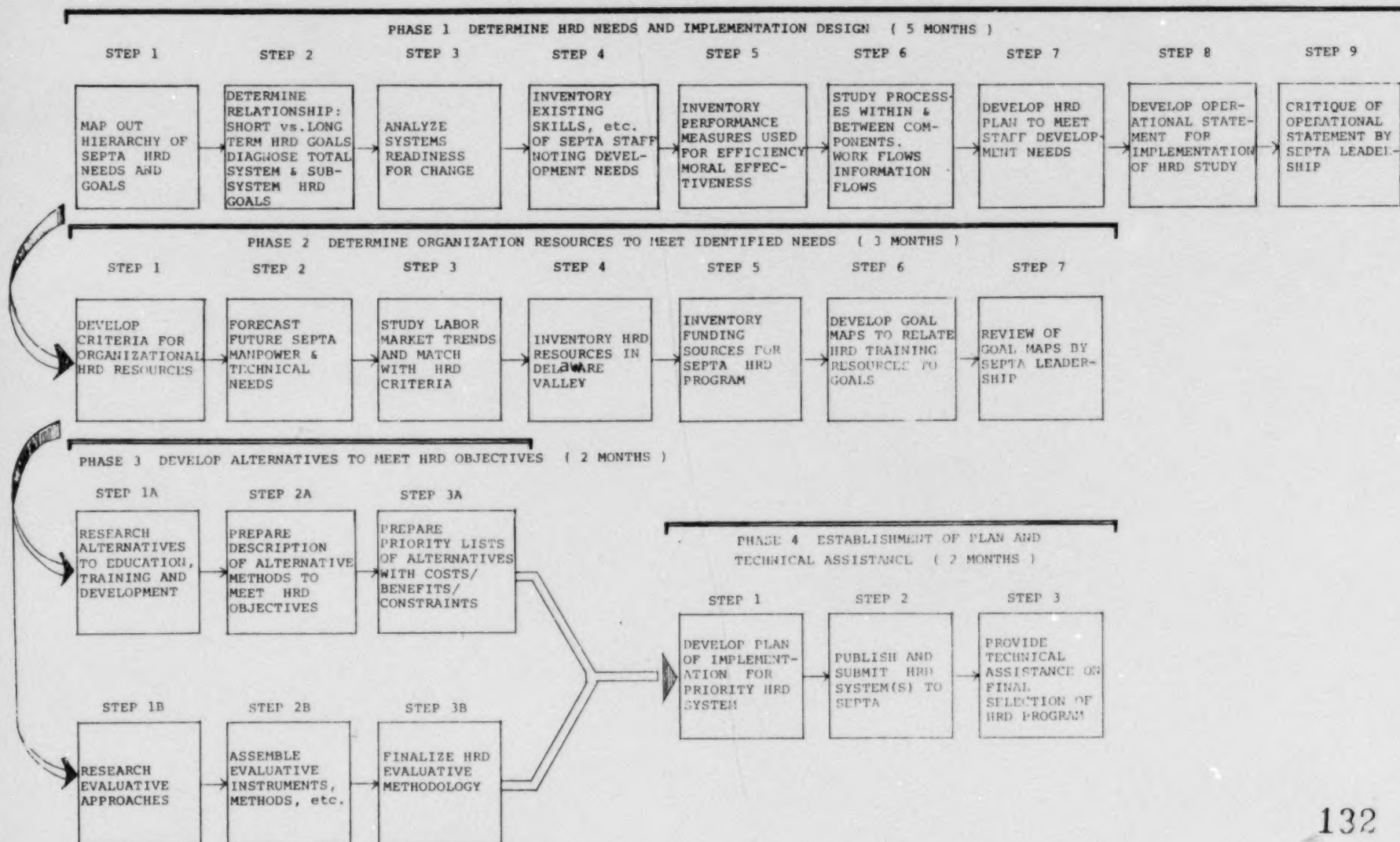
Models for the type of capital investment required are in keeping with the successful experience of private enterprise in building national and regional training installations. Within a 50-mile radius of Philadelphia, the HRC team has witnessed the economy and return on HRD investment in the training installations of Western Electric and Squibb, both outside Princeton, New Jersey. Also, we observed during the course of this study the very successful Engineer Apprentice Training Center of London Transport. In this attractive Center built several years ago, all engineer apprentice training (viz., sheet metal, welding, mechanical fitting, electronics, carpentry and mechanical fitting) for the region takes place. The Apprentice Training Center has been highly successful with a drop-out rate of less than 2 percent, although its students are mainly "school-leavers," 16½ to 17½ years of age.

4. Organization and Program of Model Center

We disagree with the earlier SEPTA proposal for a Human Resource Center which recommended a specific organizational structure and staff plan. The organizational structure of the Model Regional Center must

be based upon 1) the HRD organizational needs of SEPTA, 2) the needs of the other participating systems, and 3) a laboratory for testing and developing HRD techniques, materials, case studies, etc., by the Federal government for nation-wide distribution. Programs should not be suggested a priori but should be job related. These programs should be appropriately weighed and balanced between the present and future requirements of all participating systems.

APPENDIX A
TABLE 2
PHASES and STEPS INVOLVED in THE PROPOSED STUDY



APPENDIX B

TRAINING OBSERVATION FORM

Interviewee _____

Date _____

Place _____

Name of Training Program _____

Number of Participants Enrolled _____ No. Present _____

1. Individual Participants:

- a) What do the participants bring to the classroom (in addition to lack of knowledge or lack of specific skill)?
- b) What are the employee's perceptions about the need for learning and change?
- c) How deep is the trainee's dissatisfaction with present situation relative to training program?
- d) What are the employee's expectations from the learning experience?
- e) What kinds of fears are there in the employee - what will happen if they fail to learn the material?

2. The Instructor (Facilitator)

- a) What is your opinion of the instructor's knowledge of his subject material?
- b) What is your observation of the instructor's skill in organizing and presenting his material?
- c) What is your observation of the instructor's awareness of the complex human relationships that exist in the classroom?

- d) Does the instructor have the ability to accept the learners as individuals?

3. The Group Situation

- a) How would you characterize the dynamics of the classroom group situation you observed?
- b) Is the instructor skilled in recognizing the emotional aspects of group behavior, anxieties, hidden motives, problems of authority, and using these dynamics to foster learning in the groups?

4. Learning Conditions of Class

- a) How active or passive are the learners in the classroom situation?
- b) Do you observe supportive feedback to the participants coming from peers and self-evaluation of the skill attempted, or the instructor the sole person giving feedback?

5. Climate

Although we will obtain systematic information independently concerning the extent to which SEPTA's organizational climate is perceived as supportive of education and training, there is an opportunity to obtain additional qualitative information and observations.

- a) Do you observe any relationship between the general organizational climate in SEPTA for HRD and this training program?
- b) Is the instructor skilled at utilizing supportive elements in the organizational system, leverage in the system, resources (internal and external) to promote the learning of the trainees?

6. Maintenance of Change

- a) Is there an opportunity for the trainee to experiment and test his new skills, knowledge or new behavior within the SEPTA system?

- b) Does the instructor take steps to help the learner plan in applying the new skill or knowledge to real situations?
- c) Are these "real" situations in the SEPTA system or external to SEPTA?

APPENDIX C

TRAINING COST MODEL WORK SHEET
SEPTA PROJECT

Interviewer _____

Interviewee _____

Date _____

1. Name of Training Program _____

2. How long did/will the training last? _____

3. Where did/does training take place? _____

4. Who did/will do the training? _____

5. How many persons were/will be trained? _____
Pay Grade of Trainees (e.g. 10 A Roll) _____

6. Was there any Instructor Training? No _____ Yes _____
If yes, where did Instructor Training take place? _____

Cost of Instructor Training _____

How long did Instructor Training last? _____

7. Indirect Costs

Compensation for time students spend in training on own
time? No _____ Yes _____

If no, indicate amount of time off from work for training _____
Hours

Calculate cost (e.g. No. Trainees @ Pay Grade @ hrs. in
Training) \$ _____

Classroom Trainer cost (e.g. 4 Trainers @ \$10.00 per hr.
for 60 hrs. = \$2400) \$ _____

8. Direct Costs

Research and Development \$ _____

Production Costs, Films or Video Tapes \$ _____

Travel \$ _____

Lodging and/or Per Diem \$ _____

One time Royalty or Rights Charges \$ _____

Evaluation \$ _____

9. What are the specific training objectives being met by this program?

10. What methods are used to evaluate the effectiveness of this program?

11. What needs to be done to make this Training Program more effective?

12. Comments and/or observations by interviewer:

APPENDIX D

SEPTA

Development and Training Needs Audit

Form 1. Executive Group

Name (optional) _____

Date _____

Department _____

Level _____

Listed below are 31 possible subjects for training the top management of SEPTA. Please add any topics which you feel would fulfill a development or training need of this group. Please put an 'X' after each topic in your finalized list to indicate the degree of need as you see it. Please note that you are not being asked to evaluate the extent to which current training programs at SEPTA are effective.

Possible Subjects for Executive Group	Degree of Need				
	Great Need	Some Need	Little need	None	No basis for evaluation
1. Funding and Grantsmanship					
2. Accounting and Cost Control					
3. Financial Analysis					
4. Marketing in a Service Institution					
5. Business Insurance					
6. Government Relations					
7. Labor Relations and Collective Bargaining					
8. Public Relations					
9. Strategic Planning					

Possible Subjects for Executive Group	Degree of Need				
	Great Need	Some Need	Little Need	None	No basis for evaluation
10. Economics of Transportation Systems					
11. Legal Aspects of Transit Business					
12. Corporate Social Responsibility					
13. Problem Solving Using the Computer					
14. Decision-Making					
15. Management of Conflict					
16. Motivation					
17. Performance Appraisal Systems					
18. Reward Systems					
19. Job Design (job enrichment and enlargement)					
20. Personnel Function and EEO Regulations					
21. Manpower Forecasting and Wage Policy					
22. Recruitment and Selection Processes					
23. Safety (OSHA, etc.)					
24. Leadership Styles					
25. Communication and Group Dynamics					

Possible Subjects for Executive Group	Degree of Need				
	Great Need	Some Need	Little Need	None	No basis for evaluation
26. Organizational Development (OD)					
27. Training Function					
28. Management by Objectives					
29. Time Management					
30. Career Development and Planning					
31. Transactional Analysis (I'm OK, You're OK)					
32.					
33.					
34.					
35.					

APPENDIX

SEPTA

Development and Training Needs Audit

Form 5. Maintenance (Hourly) Employees

Name (optional) _____

Date _____

Department _____

Level _____

Listed below are 18 possible subjects for training maintenance (hourly) employees of SEPTA. Please add any topics which you feel would fulfill a development or training need of this group. Please put an "X" after each topic in your finalized list to indicate the degree of need as you see it. Please note that you are not being asked to evaluate the extent to which current training programs at SEPTA are effective.

Possible Subjects for Maintenance Employees	Degree of Need				
	Great Need	Some Need	Little Need	None	No Basis for Evaluation
1. Oral Communication					
2. Written Communication (memos, reports)					
3. Listening					
4. Preparation for the Supervisor's Job (objectives, activities, authority, responsibility)					
5. Understanding the 20-30 year olds					
6. Understanding Grievance Procedures					
7. Understanding Discipline and Supervision					
8. Understanding Why Change Is Occurring					

Possible Subjects for Maintenance Employees	Degree of Need				
	Great Need	Some Need	Little Need	None	No Basis for Evaluation
9. Understanding the Importance of Time Management					
10. Understanding the Importance of Controlling Costs					
11. Self Development					
12. Safety (OSHA, etc.)					
13. Understanding Minority Employees (race, sex, etc.)					
14. Work Simplification Methods					
15. Learning New Procedures, Methods, Mechanical Skills to Maintain Equipment					
16. Appraisal of Why Job is Important at SEPTA (cost, loss of service to community, etc.)					
17. Dealing with the Unsatisfactory Supervisor (separate from grievance procedure)					
18. Understanding Job Evaluation and Appraisal					
19.					
20.					
21.					
22. 146					147

APPENDIX E

SEPTA TRANSIT INSTITUTE
PROGRAM

SEPTA TRANSIT INSTITUTE PROGRAM

FIRST DAY - - MONDAY 9AM - 5PM

<u>ACTIVITY</u>	<u>TIME</u>	<u>LOCATION</u>	<u>TECHNIQUE (S) OF PRESENTATION</u>	<u>DEPARTMENT & PERSONNEL</u>
- Welcome	AM 9:00 - 9:15	Wyo. Conf. Rm. "A"	Oral	General Mgr. or Rep.
- Review of Agenda	9:15 - 9:30	Conf. Rm. "A"	Discussion	HRD Staff
- History of Transportation in Delaware Valley	9:30 - 10:30	Conf. Rm. "A"	A-V Pres. Discussion	HRD Staff
- Organization of SEPTA			Hand-outs	
- SEPTA Services				
- Etc.				
- Break	10:30 - 10:45	Conf. Rm. "A"	-----	HRD Staff
- Overview of SEPTA Operations	10:45 - 11:15	Conf. Rm. "A"	Discussion Q & A	Ass't Gen. Mgr. for Operations
- Overview of Transportation Department Operations	11:15 - 12:30	Conf. Rm. "A"	Discussion Q & A	Transportation H. Aikens F. Dougherty J. McGrane R. King
- Depot Division				
- Schedules Division				
- Security Division				
<u>LUNCH</u>	PM 12:30 - 1:30	SEPTA Dining Room	-----	HRD Staff
- Trolley Ride to Luzerne Depot	1:30 - 2:00	Assemble at 3rd & Wyoming	-----	Transportation J. Boscia
- Org'n of OT&S	2:00 - 5:00	Luzerne Depot	Conference	J. Boscia and OT&S Staff
- Overview of Operator Trng.			Demonstration	
- Description of Safety Prog.			"Hands-on"	
- Demo. of Safety Bus			Q & A	
- Tour of Luzerne Depot				
- Bus & Rail Maintenance Tour				R.S.S. Staff
Additional Information on Transportation Operations (OPTIONAL)	7:00 - 9:00	SEPTA HQ. 12 S. 12th or CC Hotel	Discussion & Hosp. Suite	Transportation Staff

SEPTA TRANSIT INSTITUTE PROGRAM

SECOND DAY - - TUESDAY 8AM - 5PM

<u>ACTIVITY</u>	<u>TIME</u>	<u>LOCATION</u>	<u>TECHNIQUE (S) OF PRESENTATION</u>	<u>DEPARTMENT & PERSONNEL</u>
- Briefing on Subway-El Operations & Org'n	AM 8:00 - 8:30	Assemble 12 S. 12th St	Discussion	Transportation J. Tierney
- Ride Broad St. Subway to Pattison Avenue	8:30 - 11:00	On-location	Demonstration & Participat- ion	Transportation J. Boscia J. Tierney & Staff
- Broad St. Subway - - Pattison Ave. to City Hall				
- Walk to Juniper St. Station				
- Ride Subway-surface Car to 30th St.				
- Ride El to 5th & Market				
- Ride El from 5th & Market to Margaret- Orthodox St.				
- Tour Griscom St. Sub- Station				Facilities Staff Transp. Staff
- Ride Trackless Trolley to Wyoming				
<u>BREAK</u>	11:00 - 11:15	Wyoming Conf. Rm. "A"	-----	Transportation & HRD Staff
- Briefing on Service Div. Org'n & Operation	11:15 - 12:30	Wyoming	Demonstration & Discussion	Transportation J. Morris & Staff
- Tour of Radio & Power Dispatcher Rooms				
<u>LUNCH</u>	12:30 - 1:30	SEPTA Dining Room	-----	HRD Staff

SEPTA TRANSIT INSTITUTE PROGRAM

SECOND DAY - - TUESDAY 8AM - 5PM (Continued)

<u>ACTIVITY</u>	<u>TIME</u>	<u>LOCATION</u>	<u>TECHNIQUE (S) OF PRESENTATION</u>	<u>DEPARTMENT & PERSONNEL</u>
	PM			
- Overview of Rolling Stock & Shops Operations and Responsibilities - Bus - Rail - Etc.	1:30 - 2:30	Wyoming Conf. Rm. "A"	Discussion Q & A Slide-Tape	J. Wagner J. Buckley A. Wunsch
- Wyoming Shop Tour - Machine Shop - Body Shop - Re-ring Shop - Paint Shop - Auto Shop - Vault Repair - Heavy Unit Repair - Silk-screen Shop - Upholstery Shop - Etc.	2:30 - 3:30	Wyoming Shop	Discussion Q & A Tour	M. Chiappardi and Staff
<u>BREAK</u>	3:30 - 3:45	Wyoming Conf. Rm. "C"	-----	HRD Staff
- Parts Storeroom Tour - Purchasing - Inventory - Bin Stock - Etc.	3:45 - 5:00	Wyoming Parts Storeroom	Discussion Q & A Tour	C. Cedeno and Staff

SEPTA TRANSIT INSTITUTE PROGRAM

THIRD DAY - - WEDNESDAY 8AM - 5PM

<u>ACTIVITY</u>	<u>TIME</u>	<u>LOCATION</u>	<u>TECHNIQUE (S) OF PRESENTATION</u>	<u>DEPARTMENT & PERSONNEL</u>
	AM			
- Assemble at Wyoming - -	8:00 - 8:30	Wyoming	Discussion	R.S.S. Staff
- Bus ride to Frankford Garage		Frankford Garage	Tour	
- Trackless Overhaul				
- Tour of Garage	8:30 - 9:00			
- Walk to Bridge St. Fac.	9:00 - 9:10	Bridge St.	Demonstration	
- How trains are washed	9:10 - 10:00	Facility	Q & A	
- Technique of graffiti removal			Tour	
- Bridge St. to Wyoming Bus Travel	10:00 - 10:30	In Transit	Travel	R.S.S. & HRD Staff
- Break	10:30 - 10:45	Wyoming "A"	-----	R.S.S. & HRD Staff
- Overview	10:45 - 11:30	Wyoming "A"	Discussion	J. Nielsen
- Systems Engineering			Q & A	
- Industrial Engineering			Slide Tape	
- Operations Analysis	11:30 - 12:00			B. Krant
<u>LUNCH</u>	12:00 - 1:00	SEPTA Dining Room	-----	HRD Staff
- Overview Facilities Dep't	1:00 - 1:30	Wyoming "A"	Discussion	P. Caldwell
- Track, Power, Buildings			A-V Pres,	and Staff
- Eng., Adv. Pln., Etc.			Q & A	
- Description of Power System Distr. & Tour of Power Central	1:30 - 1:45	Wyoming	Tour and Discussion	
- Tour of Track Shop - Courtland,	1:45 - 4:00	Courtland		
- Utilities - heavy eqpt. On Track maintenance, etc.				
<u>BREAK</u>	4:00 - 4:15	Wyoming "A"		
- Power Distribution	4:15 - 5:00	Wyoming	Discussion	
- Wyoming Sub-station			and Tour	
- Pole Suspension System				
- Underground Cabling				

SEPTA TRANSIT INSTITUTE PROGRAM

FOURTH DAY - - THURSDAY 8:30AM - 4:45 PM

<u>ACTIVITY</u>	<u>TIME</u>	<u>LOCATION</u>	<u>TECHNIQUE (S) OF PRESENTATION</u>	<u>DEPARTMENT & PERSONNEL</u>
- Facilities Engineering ✓ - Facilities Design - Construction Estimates - Interaction with Gov't Agencies, Consultants, Utilities, Etc.	8:30 - 10:00	Wyoming "A"	Discussion Slide-tape	J. Busch R. Thakarar
<u>BREAK</u>	10:00 - 10:15	Wyoming "A"		HRD & Facilities Staff
- Introduction to Buildings - Tour of Wyoming Fac. - Boiler Room - Fire Pump - Sprinkler System - Hoist Maintenance, Etc.	10:15 - 11:00	Wyoming	Discussion Tour	Facilities Bldgs. Staff
- Bus to 46th Street - Tour experimental Track System Installation at 46th Street - Ride from 46th to 56th St. - Walk to Allison Sub-station and tour - Ride to 60th St. Station and Tour - Ride to 69th St. and Arrow Facility	11:00 - 12:30	In Transit and on Tour	Discussion Exhibition Demonstration Tour	Facilities Staff
<u>LUNCH</u>	12:30 - 1:45	69th Street	Catered on Liberty Liner	HRD & Red Arrow Staff
- Ride Liberty Liner to Norristown & Return			Tour Discussion	F. Jordan & Staff

SEPTA TRANSIT INSTITUTE PROGRAM

FOURTH DAY - - THURSDAY 8:30AM - 4:45PM - (Continued)

<u>ACTIVITY</u>	<u>TIME</u>	<u>LOCATION</u>	<u>TECHNIQUE (S) OF PRESENTATION</u>	<u>DEPARTMENT & PERSONNEL</u>
- Victory Avenue Bus Facility & Maint. Operation	1:45 - 2:30	69th St.	Tour Discussion	F. Jordan and Staff
- Market/Frankford El - Shops - Maint. Facilities - Center Door Trolley - Exhibit, Etc.	2:30 - 3:15			
<u>BREAK</u>	3:15 - 3:30	69th St.		Red Arrow & HRD Staff
- Terminal Building - Market/Frankford El - Signal Tower	3:30 - 4:00		Discussion Tour	
- Travel to Wyoming	4:00 - 4:45 PM		In Transit	HRD Staff
- General Manager's Reception	7:00 - 10:00	To Be Announced	Social	Program Participants & Selected SEPTA Staff

SEPTA TRANSIT INSTITUTE PROGRAM

FIFTH DAY - - FRIDAY 8:30AM - 5:00 PM

<u>ACTIVITY</u>	<u>TIME</u>	<u>LOCATION</u>	<u>TECHNIQUE (S) OF PRESENTATION</u>	<u>DEPARTMENT & PERSONNEL</u>
- Commuter Rail Program - Historical Background - Public Involvement - Statistical Data - Capital Improvements - New Cars, - Stations - Parking - Commuter Tunnel Dev. - Impact of RR Operations on SEPTA Personnel - Operation of Commuter RR - Vandalism suppression	8:30 - 9:30	SEPTA Hq. 12 S. 12th.	Conference and Slide-Tape	H.C. Juran T. Beadle and Staff
- Walk to 8th & Market St.	9:30 - 9:45	In Transit	Tour	
- Ride PATCO Line from 8th & Market to Camden and return	9:45 - 10:15	and on Tour		
- 1k from 8th & Market St. to 12 S. 12th St.	10:15 - 10:30			
<u>BREAK</u>	10:30 - 10:45	12 S. 12th St.		
- Planning and Development - Charter - History - Organization - Unit Functions - Grant Programs - Marketing - Contracts - Etc.	10:45 - 12:00		Conference Exhibits Slide-Tape	H.C. Juran and Staff
<u>LUNCH</u>	12:00 - 1:00	Center City Restaurant		HRD Staff

SEPTA TRANSIT INSTITUTE PROGRAM

FIFTH DAY - - FRIDAY 8:30AM - 5:00PM (Continued)

<u>ACTIVITY</u>	<u>TIME</u>	<u>LOCATION</u>	<u>TECHNIQUE (S) OF PRESENTATION</u>	<u>DEPARTMENT & PERSONNEL</u>
- Center City to Wyoming	1:00 - 1:45	In Transit		HRD Staff
- Finance Department	1:45 - 2:45	Wyoming	Discussion & Tour	J. Mack
- Cash Collection Oper			Discussion	H.P. Creed
- Costs, Budgets			Slide-Tape	and Staff
- Financing in a non-profit org'n			Q & A	
<u>BREAK</u>	2:45 - 3:00	Wyoming "A"		HRD Staff
- Customer Service	3:00 - 3:30	Wyoming	Discussion	E. Lynch
- Information		Cust. Serv.	Exhibits	and Staff
- Complaints		Dept.	Tour	
- Lost and Found				
- Community Relations				
- Employee Relations	3:30 - 4:30	Wyoming "A"	Discussion	S. Spruance
- Employment & A.A.		and Med. Dept.	Exhibits	and Staff
- Manpower Planning			Slide-Tape	
- Compensation			Tour	
- Benefits				
- Medical				
- Human Resources Dev.				
- Award of Certificates	4:30 - 5:00	Wyoming "A"	Presentation	General Manager or Representative
<u>ADJOURN</u>				

APPENDIX F

UNIVERSITY OF PENNSYLVANIA
THE WHARTON SCHOOL
HUMAN RESOURCES CENTER

December 8, 1977

Dear SEPTA Employee:

The Urban Mass Transportation Authority of the U.S. Department of Transportation asked the Human Resources Center, The Wharton School, University of Pennsylvania, to study and recommend how training might be improved in urban mass transportation systems like SEPTA. For our recommendations to have any value, they must be based upon how SEPTA employees feel about their job and work situation. On the questionnaire enclosed, we are asking you to tell us your feelings about your job and work situation at SEPTA. Your name was obtained by random selection.

The questionnaire should take less than 30 minutes to finish, and you should work rapidly. Your first ideas or feelings are probably as good as any. This survey as well as every step in this study has been reviewed by SEPTA's leadership.

As you will note, it is not necessary to sign your name. We are not interested in identifying any individual questionnaire. Likewise, no individual questionnaire will be shown to any SEPTA employee or official. Highlights of the study will be shared with you in a future publication of Inside Track or separately. We think you will find taking the questionnaire interesting.

As stated above, this information is important to our understanding of SEPTA and how its educational and training programs might be improved. We hope that you are willing to participate in this important study and we look forward to your response.

Sincerely,

Howard E. Mitchell Ph.D

Howard E. Mitchell, Ph.D.
Director, The Human Resources Center
The Wharton School

HEM/jl
Enclosure

UNIVERSITY OF PENNSYLVANIA
THE WHARTON SCHOOL
HUMAN RESOURCES CENTER

JOB SATISFACTION-ORGANIZATIONAL CLIMATE
QUESTIONNAIRE

GENERAL INSTRUCTIONS

1. First please complete Background Information requested but do not sign your name.
2. Proceed to answer each item as directed.
3. Please complete and mail within 7 days in the stamped addressed envelope to:

Human Resources Center
The Wharton School
University of Pennsylvania
3810 Walnut Street
Philadelphia, Penna. 19104
4. If you would happen to lose your Questionnaire, please call 243-7818 or 7819 and another will be sent to you.

BACKGROUND INFORMATION

Please circle category for each item.

1. Your location in SEPTA:
 1. Managerial/Professional (SAM)
 2. Clerical (B-Roll)
 3. Facilities Maintenance (H-Roll)
 4. RS&S (H-Roll)
 5. Transportation (H-Roll)
2. Department: _____
3. Years of Service with SEPTA (Specify if not continuous, e.g. 1962-1967, 1973-1977)

4. Age:
 1. Up to 25 years _____
 2. 26 to 35 years _____
 3. 36 to 45 years _____
 4. 46 to 55 years _____
 5. Over 55 years _____
5. Sex:
 1. Male
 2. Female
6. Marital Status
 1. Single
 2. Married
 3. Separated or Divorced
 4. Other

SEPTA JOB SATISFACTION-ORGANIZATIONAL CLIMATE QUESTIONNAIRE

DIRECTIONS:

- 1) CIRCLE A CATEGORY (1, 2, 3, etc.) FOR EACH ITEM.
- 2) WORK RAPIDLY, YOUR FIRST FEELINGS ARE PROBABLY AS GOOD AS ANY.
- 3) DO NOT SIGN YOUR NAME.
- 4) MAIL WITHIN 7 DAYS AS DIRECTED.

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1. The physical working conditions make working here:
 1. Very unpleasant
 2. Unpleasant
 3. Neither pleasant nor unpleasant
 4. Pleasant
 5. Very pleasant
2. How often when you finish a day's work do you feel you've accomplished something really worthwhile?
 1. All of the time
 2. Most of the time
 3. About half of the time
 4. Less than half of the time
 5. Rarely
3. The jobs in SEPTA are clearly defined and logically structured.
 1. Strongly agree
 2. Slightly agree
 3. Slightly disagree
 4. Strongly disagree
4. In this department there is:
 1. A very great deal of friction
 2. Quite a bit of friction
 3. Some friction
 4. Little friction
 5. Almost no friction
5. Does the way pay is handled around here make it worthwhile for a person to work especially hard?
 1. It definitely encourages hard work
 2. It tends to encourage hard work
 3. It makes little difference
 4. It tends to discourage hard work
 5. It definitely discourages hard work
6. Around SEPTA there is a feeling of pressure to continually improve our personal and group performance.
 1. Strongly agree
 2. Slightly agree
 3. Slightly disagree
 4. Strongly disagree
7. The people who supervise me have:
 1. Many more good traits than bad ones
 2. More good traits than bad ones
 3. About the same number of good traits as bad ones
 4. More bad traits than good ones
 5. Many more bad traits than good ones
8. The philosophy of our management is that in the long run we get ahead fastest by playing it slow, safe, and sure.
 1. Strongly agree
 2. Slightly agree
 3. Slightly disagree
 4. Strongly disagree
9. People in SEPTA don't really trust each other enough.
 1. Strongly agree
 2. Slightly agree
 3. Slightly disagree
 4. Strongly disagree
10. Do you feel you are getting ahead in the company?
 1. I'm making a great deal of progress
 2. I'm making some progress
 3. I'm not sure
 4. I'm making very little progress
 5. I'm making no progress
11. SEPTA's philosophy emphasizes that people should solve their work problems by themselves.
 1. Strongly agree
 2. Slightly agree
 3. Slightly disagree
 4. Strongly disagree
12. How do you feel about your physical working conditions?
 1. Extremely satisfied
 2. Well satisfied
 3. Only moderately satisfied
 4. Somewhat dissatisfied
 5. Very dissatisfied
13. There is a great deal of criticism of SEPTA, in newspapers and on radio and TV.
 1. Strongly agree
 2. Slightly agree
 3. Slightly disagree
 4. Strongly disagree
14. How do you feel about the amount of work you're expected to do?
 1. Very dissatisfied
 2. Somewhat dissatisfied
 3. Neither satisfied nor dissatisfied
 4. Somewhat satisfied
 5. Very satisfied
15. The attitude of our management is that conflict between competing units and individuals can be very healthy.
 1. Strongly agree
 2. Slightly agree
 3. Slightly disagree
 4. Strongly disagree
16. The policies and organization structure of SEPTA have been clearly explained.
 1. Strongly agree
 2. Slightly agree
 3. Slightly disagree
 4. Strongly disagree

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17. How does working for SEPTA influence your overall attitude toward your job? _____
1. It has a very unfavorable influence
2. It has an unfavorable influence
3. It has no influence one way or the other
4. It has a favorable influence
5. It has a very favorable influence
18. You won't get ahead in SEPTA unless you stick your neck out and try things on your own sometimes. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
19. How does the amount of money you now make influence your overall attitude toward your job? _____
1. It has a very favorable influence
2. It has a fairly favorable influence
3. It has no influence one way or the other
4. It has a slightly unfavorable influence
5. It has a very unfavorable influence
20. My job at SEPTA requires that I work with other departments of SEPTA: _____
1. All of the time
2. Most of the time
3. Some of the time
4. Rarely
21. SEPTA management encourages us to seek advice and work with other departments at SEPTA. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
22. How secure are you in your present job? _____
1. I feel very uneasy about it
2. I feel fairly uneasy about it
3. I feel somewhat uneasy about it
4. I feel fairly sure of it
5. I feel very sure of it
23. Our management is willing to take a chance on a good idea. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
24. How much pride can you take in the appearance of your unit? _____
1. A very great deal
2. Quite a bit
3. Some
4. Little
5. Very little
25. In some of the jobs I've been on at SEPTA, I haven't been sure exactly who my boss was. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
26. The best way to make a good impression at SEPTA is to steer clear of open arguments and disagreements. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
27. To get ahead in SEPTA, it's more important to get along than it is to produce a lot. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
28. People in SEPTA tend to be cool and not friendly toward each other. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
29. How do you generally feel about the employees you work with? _____
1. They are the best group I could ask for
2. I like them a great deal
3. I like them fairly well
4. I have no feeling one way or the other
5. I don't particularly care for them
30. Considering what it costs to live in this area, my pay at SEPTA is: _____
1. Very inadequate
2. Inadequate
3. Barely adequate
4. Adequate
5. More than adequate
31. One of the problems in SEPTA is that individuals won't take responsibility. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
32. How much does the way co-workers handle their jobs add to the success of your unit? _____
1. It adds almost nothing
2. It adds very little
3. It adds only a little
4. It adds quite a bit
5. It adds a very great deal
33. Our management isn't so concerned about formal organization and authority, but concentrates instead on getting the right people together to do the job. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
34. We have a promotion system at SEPTA that helps the best person to rise to the top. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree

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35. You don't get much support from higher-ups in SEPTA if you make a mistake.

1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree

36. I feel my workload is:

1. Never too heavy
2. Seldom too heavy
3. Sometimes too heavy
4. Often too heavy
5. Almost always too heavy

37. How do your physical working conditions affect the way you do your job?

1. They help me a great deal
2. They help a little
3. They make little difference
4. They tend to make it difficult
5. They make it very difficult

38. At SEPTA the rewards and encouragements you get usually outweigh the threats and the criticism.

1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree

39. When I am on a difficult assignment, I can usually count on getting assistance from my co-workers.

1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree

40. In department or staff meetings, the goal is to arrive at a decision as smoothly and quickly as possible.

1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
5. Not applicable; do not have department or staff meetings.

41. Do you ever have the feeling you would be better off working under different supervision?

1. I almost always feel this way
2. I frequently feel this way
3. I occasionally feel this way
4. I seldom feel this way
5. I never feel this way

42. How do you feel about your future with SEPTA?

1. I am very worried about it
2. I am somewhat worried about it
3. I have mixed feelings about it
4. I feel good about it
5. I feel very good about it

43. At SEPTA very high standards for performance are set.

1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree

44(a) To what extent are your needs satisfied by the pay you receive?

1. Almost none of my needs are satisfied
2. Very few of my needs are satisfied
3. A few of my needs are satisfied
4. Many of my needs are satisfied
5. Almost all of my needs are satisfied

44(b) To what extent are your needs satisfied by the benefits you receive?

1. Almost none of my needs are satisfied
2. Very few of my needs are satisfied
3. A few of my needs are satisfied
4. Many of my needs are satisfied
5. Almost all of my needs are satisfied

45. There is a lot of warmth in the relationships between management and workers in SEPTA.

1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree

46. How do you feel about the supervision you receive?

1. I am extremely satisfied
2. I am well satisfied
3. I am only moderately satisfied
4. I am somewhat dissatisfied
5. I am very dissatisfied

47. From my experiences, the results of my work with other SEPTA departments has been positive.

1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree

48. How is your overall attitude toward your job influenced by the people you work with?

1. It is very favorably influenced
2. It is favorably influenced
3. It is not influenced one way or the other
4. It is unfavorably influenced
5. It is very unfavorably influenced

49. Supervision at SEPTA is mainly a matter of setting rules for the people who work for you; you let them take responsibility for the job.

1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree

50. Management makes an effort to talk with you about your career goals within SEPTA.

1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree

51. How do you describe SEPTA as a company to work for?

1. Couldn't be much better
2. Very good
3. Fairly good
4. Just another place to work
5. Poor

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52. As far as I can see, there isn't very much personal loyalty to SEPTA. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
53. Our management believes that no job is so well done that it couldn't be done better. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
54. How does the way you are treated by those who supervise you influence your overall attitude toward your job? _____
1. It has a very unfavorable influence
2. It has a slightly unfavorable influence
3. It has no real effect
4. It has a favorable influence
5. It has a very favorable influence
55. A friendly atmosphere prevails among the people in SEPTA. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
56. There is something about working for SEPTA that: _____
1. Greatly encourages me to do my best
2. Definitely encourages me to do my best
3. Only slightly encourages me to do my best
4. Tends to discourage me from doing my best
5. Definitely discourages me from doing my best
57. How does the amount of work you're expected to do influence your overall attitude toward your job? _____
1. It has a very favorable influence
2. It has a favorable influence
3. It has no influence one way or the other
4. It has an unfavorable influence
5. It has a very unfavorable influence
58. Management believes that if the people are happy, productivity will take care of itself. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
59. My interactions with other departments of SEPTA have been: _____
1. Very favorable
2. Somewhat favorable
3. Somewhat unfavorable
4. Very unfavorable
60. Around SEPTA, management resents your checking everything with them; if you think you've got the right approach you just go ahead. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
61. Hassles are kept to a minimum in SEPTA. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
62. From my experience, I feel SEPTA probably treats its employees: _____
1. Poorly
2. Somewhat poorly
3. Fairly well
4. Quite well
5. Extremely well
63. There is not enough reward and recognition given in SEPTA for doing good work. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
64. We are encouraged to speak our minds, even if it means disagreeing with our superiors. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
65. How does the amount of work you're expected to do influence the way you do your job? _____
1. It never allows me to do a good job
2. It seldom allows me to do a good job
3. It has no effect on how I do my job
4. It usually allows me to do a good job
5. It always allows me to do a good job
66. How many of the things you do on your job do you enjoy? _____
1. Nearly all
2. More than half
3. About half
4. Less than half
5. Almost none
67. Decision making in SEPTA is too cautious to be effective. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
68. At SEPTA it is sometimes unclear who has the formal authority to make a decision. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
69. How do you feel about the kind of work you do? _____
1. I don't like it; I would prefer some other kind of work
2. It's OK, there's other work I like better
3. I like it, but there is other work I like as much
4. I like it very much
5. It's exactly the kind of work I like best

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70. At SEPTA, if you do your job well you will be rewarded. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
71. For the work I do, my physical working conditions are: _____
1. Very poor
2. Relatively poor
3. Neither good nor poor
4. Reasonably good
5. Very good
72. At SEPTA people don't seem to take much pride in their performance. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
73. The supervision I receive is the kind that: _____
1. Greatly discourages me from giving extra effort
2. Tends to discourage me from giving extra effort
3. Has little influence on me
4. Encourages me to give extra effort
5. Greatly encourages me to give extra effort
74. Productivity at SEPTA suffers from lack of organization and planning: _____
1. Frequently
2. Sometimes
3. Rarely
4. Never
75. How do your feelings about your future with SEPTA influence your overall attitude toward your job? _____
1. They have a very favorable influence
2. They have a favorable influence
3. They have no influence one way or the other
4. They have a slightly unfavorable influence
5. They have a very unfavorable influence
76. The example my fellow employees set: _____
1. Greatly discourages me from working hard
2. Somewhat discourages me from working hard
3. Has little effect on me
4. Somewhat encourages me to work hard
5. Greatly encourages me to work hard
77. I feel that I am a member of a well functioning team. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
78. The way my future with SEPTA looks to me now: _____
1. Hard work seems very worthwhile
2. Hard work seems fairly worthwhile
3. Hard work seems worthwhile
4. Hard work seems hardly worthwhile
5. Hard work seems almost worthless
79. It is my opinion that for the most part, the various departments at SEPTA work well with each other. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
80. People are proud of being a part of the SEPTA system. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
81. Excessive rules, administrative details, and hassles make it difficult for new and original ideas to receive consideration. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
82. It's very hard to get to know people in SEPTA. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
83. How do your physical working conditions influence your overall attitude toward your job? _____
1. They have a very unfavorable influence
2. They have a slightly unfavorable influence
3. They have no influence one way or the other
4. They have a favorable influence
5. They have a very favorable influence
84. How does the kind of work you do influence your overall attitude toward your job? _____
1. It has a very unfavorable influence
2. It has a slightly unfavorable influence
3. It has no influence one way or the other
4. It has a fairly favorable influence
5. It has a very favorable influence
85. There are an awful lot of excuses around SEPTA when somebody makes a mistake. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
86. For the job I do, I feel the amount of money I make is: _____
1. Extremely good
2. Good
3. Neither good nor poor
4. Fairly poor
5. Very poor
87. How much do the efforts of those who supervise you add to the success of your departments? _____
1. A very great deal
2. Quite a bit
3. Only a little
4. Very little
5. Almost nothing

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88. The kind of job I have at SEPTA: _____
1. Discourages me from doing my best
2. Tends to discourage me from doing my best
3. Makes little difference
4. Slightly encourages me to do my best
5. Greatly encourages me to do my best
89. How much of the work you do stirs up real enthusiasm on your part? _____
1. Nearly all of it
2. More than half of it
3. About half of it
4. Less than half of it
5. Almost none of it
90. I think SEPTA, as a company, considers employee welfare: _____
1. Much less important than ridership and revenues
2. Less important than ridership and revenues
3. About as important as ridership and revenues
4. More important than ridership and revenues
5. Much more important than ridership and revenues
91. We don't rely too heavily on individual judgment in SEPTA; almost everything is double-checked. _____
1. Strongly agree
2. Slightly agree
3. Slightly disagree
4. Strongly disagree
92. How much of the work you do depends upon getting or passing on information to a department to which you are not assigned? _____
1. Nearly all of it
2. More than half of it
3. About half of it
4. Less than half of it
5. Almost none of it

Any Comments:

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